



March 26, 2018

David Chiusano  
New York State Department of Environmental Conservation  
Div. of Environmental Remediation  
625 Broadway, 12<sup>th</sup> floor  
Albany, NY 12233-7015

**RE: Site No. 224015, Empire Electric, 5200 First Avenue, Brooklyn, NY – Investigation Summary Report**

Dear Mr. Chiusano:

This letter summarizes the investigation activities conducted by Environmental Assessment & Remediations (EAR) at the above referenced site. The investigation activities were conducted in July through October 2017 in response to directives provided in the New York State Department of Environmental Conservation (NYSDEC) Standby Contractor Authorization Form dated 6/2/17 (Callout ID: 129841). A site location map is provided as Figure 1.

Prior to the investigation activities conducted by EAR, site remedial activities conducted by project engineers EA Engineering, Science and Technology, Inc (EA) included demolition of the former Empire Electric building and subsequent excavation which exposed a subfloor located several feet below street level. The building footprint and site features are illustrated in Figure 2.

**Soil Borings / Temporary Well Installations**

A conceptualized 3x3 meter grid pattern of thirty (30) temporary borings in the area of interest was proposed by project engineers, EA (Syracuse, NY), and approved by NYSDEC in effort to delineate extent of impact. Proposed locations were measured out by EAR on the first day of field activities and sequentially labeled as SB-1 through SB-30. Select locations proved inaccessible due to the presence of the concrete slabs/debris and granite blocks which constituted part of the sub flooring; a total of 13 locations were removed from the sampling plan (SB-1, SB-10, SB-20, SB-21 through SB-30). Four additional locations (SB-31 through SB-34) were added to the sampling plan by EA's onsite representative. As such, a total of 17 temporary boring locations were accessible for sample collection.

Temporary borings were advanced over a five-day period (July 6-10, 2017) using a stainless-steel hand auger. At 13 locations, soil samples were collected from three depth intervals: 0-1, 1-2, and 2-3 feet below grade surface (BGS). At locations SB-3, SB-4, and SB-6, the auger could not be advanced beyond 2 feet BGS. As directed by EA's onsite representative, SB-15 and SB-18 were advanced to approximately 6.5 feet BGS; with an additional soil sample collected at 5.5-6.5 ft BGS at SB-15. All samples were logged for lithology and screened with a photo-ionization detector (PID) for total volatile



organic compounds (VOCs) via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsate was co-mingled with another project contractor's (PAL Environmental Services (Long Island City, NY)) aqueous wastes. Following sample collection, all boreholes were backfilled to grade with native soil.

A total of 65 soil samples (including 7 blind duplicates) and 3 aqueous samples (rinse blanks) were submitted to a NYSDEC standby laboratory (Test America, Inc.) for analysis of polychlorinated biphenyls (PCBs) via EPA Method 8082. Samples were submitted for expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

On July 26, additional soil samples were collected from 3 locations (SB-13, SB-15 and SB-19) for VOC analysis. Per directives from the onsite EA representative, borings at these locations were to be advanced to 4-feet BGS. At SB-13 and SB-15, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 3-4 feet BGS. At SB-19, boring could not be advanced beyond 3.5 feet BGS, as such the 3-4 feet sampling interval was excluded.

Temporary borings were advanced using a stainless-steel hand auger. All samples were logged for lithology and screened with a PID for VOCs via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub and de-ionized water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

At each boring location, the interval exhibiting the highest PID reading was retained for lab analysis. EAR submitted a total of 4 soil samples (including one blind duplicate). All soil samples were preserved via EPA 5035 compliant means and submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260. Samples were submitted for an expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

Analytical results from the above soil sampling activities are summarized in Tables 1-2. Boring logs are provided as Appendix A.

At locations SB-13, SB-15, and SB-18, EAR installed temporary monitoring wells each consisting of 2-feet of 1-inch diameter Schedule 40 PCV screen (20 slot) and 1-inch diameter Schedule 40 PVC riser extending to approximately 2-feet above grade surface. SB-13\_GW was screened from 1-2 feet BGS. After observing poor groundwater recharge at this location, SB-15\_GW was screened from 4-6 feet BGS and SB-18\_GW was screened from 3-5 feet BGS. At each location, #2 well gravel was installed to the top of the screened interval followed by a hydrated bentonite seal from top of the screened interval to grade surface. Well risers were extended to approximately 2-feet above grade surface and capped with PVC dome caps.

On September 27-28, 2017, EAR was onsite to conduct additional soil sampling and installation of temporary monitoring wells within the building footprint using a track mounted direct-push rig. Drilling services were provided by Aarco Environmental Services (Lindenhurst, NY). Soil samples were collected continuously in 4-foot intervals from grade to the end of the boring. All samples were logged for lithology and screened with a PID for total volatile organic compounds (VOCs) via the headspace method. All downhole tooling was decontaminated between sample intervals via Alconox scrub,



followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

A total of four boring pairs (SB-35 through SB-38) were conceptualized; with a shallow boring installed to approximately 10-feet BGS and a deep boring to approximately 23-feet BGS at each of the proposed four locations. Boring locations are shown in Figure 3.

Three attempts were made to install borings at location SB-35, however refusal was encountered at approximately 7-feet BGS during each attempt. Per EA and NYSDEC, no further attempts were made at this location.

Two attempts were advanced at location SB-36, with soil samples collected from grade to approximately 8.5-feet BGS before refusal was encountered. As directed by NYSDEC, only the 6-8 foot sample interval was retained for laboratory analysis. A temporary monitoring well (SB-36D) was installed and constructed of a 2-inch diameter, 5-foot pre-packed screen set at 3-8 feet BGS, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 1-foot above grade. No. 0 gravel pack was installed to 2.5-feet below grade, and a bentonite seal was installed from 2.5-feet below grade to surface.

At SB-37, soil samples were collected from grade to 24-ft BGS. Samples from each depth interval were retained for laboratory analysis. A temporary well (SB-37D) was installed and constructed of a 2-inch diameter schedule 40 PVC pre-packed screen (5-foot) section set at 19-24 feet BGS and a 4-foot section of 2-inch diameter, schedule 40 PVC riser extending to 2-feet above grade. No. 0 gravel pack was installed to 17-feet BGS, and a bentonite seal was installed from 17-feet BGS to surface. A complementary, shallow well (SB-37S) was installed adjacent to SB-37D to a total depth of 11-feet BGS. SB-37S was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4-feet BGS, and a bentonite seal was installed from 4-feet BGS to surface.

At location SB-38, soil samples were collected from grade to 28-ft BGS. Samples from discrete sampling intervals from grade to 24-ft BGS were retained for laboratory analysis. During advancement of larger diameter rods for installation of the temporary monitoring well, refusal was encountered at approximately 11.5-feet BGS. Concrete was observed in soil samples collected at the same interval. Per the onsite EA representative, the temporary monitoring well was set at 11.5-feet BGS and was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4.5-feet BGS, and a bentonite seal was installed from 4.5-feet BGS to surface.

A total of 13 soil samples and 1 rinse blank were collected and submitted to Test America, Inc. of analysis of PCBs via EPA Method 8082. Of those soil samples, a total of 7<sup>1</sup> were also analyzed for VOC's via EPA Method 8260C<sup>2</sup>, SVOC's via 8270, pesticides via 8081, TAL metals via 6020/7470, and total cyanide via 9012. All soil samples submitted for analysis of VOCs were preserved via EPA 5035 compliant means. Samples were submitted for an expedited (72-hr) turn around with Category B deliverables requested. Samples were picked up by the laboratory-provided courier service each day for transport to the lab.

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<sup>1</sup> Samples from depth intervals corresponding to the water table interface, anticipated depth of upcoming focused soil excavation, and boring terminus.

<sup>2</sup> All soil samples for VOC analysis were preserved via EPA 5035 compliant means



Soil analytical results are summarized in Tables 3-7. Site maps with posted analytical data for soil borings conducted July – September are provided as Figures 3-5<sup>3</sup>. Boring logs are provided as Appendix A.

### **Groundwater Sampling**

Seven (7) temporary wells were installed on July-September 2017 with screened intervals summarized as follows:

<b>Location</b>	<b>Screen Interval (ft BGS)</b>
SB-13 GW	1-2
SB-15 GW	4-6
SB-18 GW	3-5
SB-36	3.5-5.5
SB-37S	6-11
SB-37D	19-24
SB-38	6.5-11.5

Groundwater samples were collected from temporary wells SB-13\_GW, SB-15\_GW, and SB-18\_GW on July 7-10 utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged and recorded. Due to very poor recharge at the three temporary monitoring wells, water quality parameters could not be monitored and samples were collected as soon as the wells yielded sufficient sample volume.

Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 3 groundwater samples were submitted to Test America, Inc. for analysis of PCBs via EPA Method 8082.

Samples were collected from the SB-13\_GW, SB-15\_GW, and SB-18\_GW again on July 26 and August 9 utilizing the above referenced methodology. Due to very poor recharge, water quality parameters could not be monitored and samples were collected following purges of one well volume. Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 7 groundwater samples (including 1 blind duplicate) were submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082 (dissolved<sup>4</sup>), TAL metals via 6020/7470 (total and dissolved), total cyanide via 9012, and PFA's via modified 537.

Analytical results from the above groundwater samples are summarized in Tables 8-13.

<sup>3</sup> Post maps are not provided for pesticides as no analytes were detected under EPA Method 8081. Post maps are not provided for TAL Metals as no parameters exceeded 6 NYCRR 375-6 soil cleanup objectives for commercial, industrial, or unrestricted use.

<sup>4</sup> Groundwater samples for dissolved PCB and metals analyses were collected on August 9, 2017.



The wells installed September 27-28 (SB-36, SB-37S, SB-37D, and SB-38) were developed on September 29 via pumping using a submersible pump. All wells exhibited poor recharge at flow rates from 0.1 to 0.5 gallons per minute and had to be rested periodically to allow for recharge. Each well was purged of at least 5 well volumes with pumping continuing until turbidity dropped below 50 nephelometric turbidity units (NTUs) or stabilized with little apparent visually observed improvement.

Development purge volumes and turbidity readings are summarized as follows:

Location	Purge (cumulative gallons)	NTUs at Completion	Observations
SB-36	2.75	808	Well repeatedly stripped during pumping. Purge water transitioned from dark brown to light brown after 2 gallons then stabilized.
SB-37S	10.0	17.2	Well repeatedly stripped during pumping. Purge water transitioned from dark red- brown to clear after 8 gallons.
SB-37D	21.0	47.7	Well repeatedly stripped during pumping. Purge water transitioned from dark red- brown to clear after 16 gallons.
SB-38	9.0	>1,000	Well repeatedly stripped during pumping. Purge water transitioned from dark brown to light brown after 7 gallons then stabilized.

Groundwater samples were collected from SB-36, SB-37S, SB-37D, and SB-38 on October 3, 2017, utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well. Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse. Decontamination rinsate was co-mingled with PAL Environmental Services' aqueous wastes.

EAR collected a total of 4 aqueous samples which were submitted to Test America, Inc. for analysis of VOCs via EPA Method 8260C, SVOCs via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470 (total and dissolved), and total cyanide via 9012.

Analytical results are summarized in Tables 14-18. Field screening results are summarized in Table 19. Site maps with posted analytical data for groundwater samples collected at temporary wells are provided as Figures 6-10

### **Concrete Sampling**

On July 21 and July 25, 2017, EAR collected concrete samples from a total of 30 locations predetermined by EA. At each location, concrete samples were collected from 0-3 inches BGS and 3-6 inches BGS.

Samples were collected using a hammer drill fitted with a 1.5-inch diameter masonry bit. The drill was advanced through a 1.5-inch diameter hole in a stainless-steel tray to the desired sample depth. Concrete drill cuttings, collected in the steel tray, were screened with a PID (via headspace method) and placed in appropriate laboratory-provided containers. All sampling tools which contacted concrete were



decontaminated between samples via a hexane wipe followed by a wash with anionic detergent (Liquinox) and a distilled water rinse.

A total of 66 concrete samples (including 6 blind duplicates) and 2 rinsate blanks were submitted to a NYSDEC standby laboratory (Test America, Inc.) for analysis of polychlorinated biphenyls (PCBs) via EPA Method 8082. Samples from locations CB-9 (3-6 inches BGS) and SB-22 (0-3 inches BGS) were also submitted for analysis of VOCs via EPA Method 8260 due to elevated PID readings. PCB analysis of samples from the 3-6 inch BGS intervals was initially placed on hold with activation pending review of analytical results from the 0-3 inch BGS samples.

On August 9 and September 21, 2017, EAR collected additional samples at locations CB-10 (CB-10R), and CB-20, CB-22, CB-23, CB-24, CB-29, CB-30 (CB-20PS, CB-22PS, etc...). Prior to re-sampling, these locations had been scarified by another contractor. A concrete sample was collected again at CB-30 (CB-30PS2) on October 3, 2017, following additional scarification activities. All post-scarification samples were collected from 0-3 inches below post-scarification grade using the above described methodology. A total of 9 concrete samples (including 1 blind duplicate) and 2 rinsate blanks were submitted to Test America, Inc. for analysis of PCBs via EPA Method 8082.

Analytical results are summarized in Tables 20-21. Site maps with posted analytical data for concrete samples are provided as Figures 11-12.

### **Offsite Groundwater Sampling and Monitoring Well Installation**

On July 24 & 27, 2017, EAR collected groundwater samples from seven (7) pre-existing site monitoring wells. Groundwater samples were not collected at MW-13 as this well could not be located. Groundwater samples were not collected at MW-10 as the riser could not be located and was believed to have been damaged. Groundwater samples were not collected at MW-5 as neither water level meter or sample tubing could be advanced beyond 7 feet BGS.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter (YSI 556 or equivalent) was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and ORP were recorded as well.

Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 9 water samples (including 1 blind duplicate and 1 rinse blank) were submitted to a NYSDEC standby contracted laboratory (Test America, Inc.) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537.

Analytical results are summarized in Tables 22-27 and are compared to the TOGS 1.1.1 Class GA water quality standards and guidance values<sup>5</sup>. Field screening results are summarized in Table 28. Depth-to-water readings, as gauged prior to sampling, are summarized in Table 29.

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<sup>5</sup> NYSDEC Division of Water Technical & Operational Guidance Series 1.1.1 – Ambient Water Quality Standards and Guidance Values, Class GA (groundwater)



Following directives from NYSDEC to install replacement wells for MW-10, MW-13, and MW-05, EAR and its subcontractor (Aarco Environmental Services) mobilized to the site on September 20, 2017. During rig set-up and clearing activities, the casings for both MW-10 and MW-13 were located. As directed by an onsite NYSDEC representative, Araeco installed new manholes (8-inch diameter, steel, bolt-down manholes) and concrete pads (12"x12") at both locations and redeveloped the wells. As well development activities were not scheduled for 9/20, no turbidimeter was available. NYSDEC directed EAR/Aarco to develop the wells, to the extent feasible, until purge waters were visibly clear. MW-10 and MW-13 were developed via pumping using the inertia method. MW-13 was purged of approximately 20 gallons (12.5 well volumes). MW-10 was purged of approximately 10 gallons (5.5 well volumes). Purge water generated was co-mingled with PAL Environmental Services' aqueous wastes.

On September 25, 2017, EAR and Araeco installed a replacement monitoring well (MW-05R) in the vicinity of MW-05 using hollow-stem auger drilling methods. During advancement of the borehole, soil samples were collected continuously from grade surface to 25-foot BGS using a split-spoon sampler (2-foot intervals). The samples were inspected for lithological changes and physical evidence of contamination. Soil samples collected from the water table interface (11-13 feet BGS, 149.3 ppm) and at the interval exhibiting the highest PID reading (19-21 feet BGS, 120.4 ppm) were retained for laboratory analysis.

MW-05R is constructed of 14-feet of 2-inch diameter, 10-slot, schedule 40 PVC screen installed from 14 feet to 24 feet BGS, and 14-feet of 2-inch diameter, schedule 40 PVC riser. Gravel pack was installed from 24-feet to 12-feet BGS, with a bentonite seal from 12-feet to 9-feet BGS. Bentonite grout was installed from 9-feet BGS to near grade. The surface was finished with an 8-inch diameter, steel, bolt-down manhole set in a 24-inch by 24-inch concrete pad. The well casing was secured with a locking J-plug.

MW-05R was developed via pumping using a submersible pump. The well was pumped of at least 5 well volumes and two consecutive samples yielded turbidity readings less than 50 nephelometric turbidity units (NTU). Generated purge water (~40 gallons) was comingled with PAL's aqueous wastes.

Soil samples collected during the MW-05R installation activities and retained for lab analysis were submitted to Test America, Inc. for analysis of VOC's via EPA Method 8260C<sup>6</sup>, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, and total cyanide via 9012.

Analytical results for soil samples collected during MW-05R installation activities are summarized in Tables 30-34. A drill log for MW-05R is included in Appendix A.

Groundwater samples were collected from MW-05R, MW-10, and MW-13 on October 2, 2017. Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter (YSI 556 or equivalent) was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

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<sup>6</sup> All soil samples for VOC analysis were preserved via EPA 5035 compliant means



Groundwater samples collected for lab analysis were placed into the appropriate sample containers provided by the laboratory and immediately placed in a cooler with ice to maintain a temperature of 4 degrees Celsius. A total of 4 water samples (including 1 blind duplicate) were submitted to an NYSDEC standby contracted laboratory (Test America, Inc.) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCBs via 8082, TAL metals via 6020/7470, and total cyanide via 9012.

Groundwater analytical is summarized in Tables 22-27. Field screening results are summarized in Table 28. Site maps with posted analytical data for offsite groundwater samples are provided as Figures 13-15

### **Survey**

Newly installed, modified, and select pre-existing site monitoring wells were surveyed by an EAR survey team on September 27 and October 2, 2017. The survey was conducted in order to provide northing and easting coordinates and riser elevation data to the nearest 0.01 foot. As requested by EA, the EAR survey team also surveyed select curblines and other permanent features along 52<sup>nd</sup> Street to the northwest (hydraulic downgradient) of the site.

Figure 16 illustrates the locations of surveyed features. Coordinate and elevation<sup>7</sup> data is summarized in Tables 35-36.

### **Documentation & Quality Control**

Field activities detailed herein were documented in daily field reports. The daily field reports, which contain field notes and copies of chain of custody forms, are provided as Appendix B.

A summary of analytical results for quality assurance/quality control (QAQC) samples is provided as Appendix C.

All NYSDEC ASP Category B deliverables are under review for completeness and compliance. Data usability summary reports (DUSR) will be generated and submitted to NYSDEC under separate cover along with the laboratory analytical reports.

Should you have any questions regarding the activities or data detailed in this report, please feel free to contact me at 631.241.8741.

Sincerely,

A handwritten signature in black ink, appearing to read 'I. Hofmann', written over a light blue rectangular background.

Ian Hofmann  
Project Manager

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<sup>7</sup> Elevation datum is based on USGS National Map land elevation at initial survey station.





Cc:  
Conan, D. (EA)  
Conden, R. (EA)  
Lawrence, J. (EAR)



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Table 1

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

## Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8082A

Location	Depth (ft) BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
SB-2	0-1	7/6/2017	9:53 AM	12.1	<15000	<15000	<15000	<15000	<15000	<15000	160,000	<15000	<15000	160,000
	1-2	7/6/2017	9:55 AM	16.2	<160	<160	<160	<160	<160	<160	2,000	<160	<160	2,000
	2-3	7/6/2017	9:59 AM	21.7	<850	<850	<850	<850	<850	<850	9,100	<850	<850	9,100
SB-3	0-1	7/6/2017	10:03 AM	18.9	<8200	<8200	<8200	<8200	<8200	<8200	95,000	<8200	<8200	95,000
SB-4	0-1	7/6/2017	10:10 AM	8.9	<3700	<3700	<3700	<3700	<3700	<3700	47,000	<3700	<3700	47,000
SB-5	0-1	7/6/2017	10:16 AM	10.9	<750	<750	<750	<750	<750	<750	11,000	<750	<750	11,000
	1-2	7/6/2017	10:28 AM	19.5	<83	<83	<83	<83	<83	<83	960	<83	<83	960
	2-3	7/6/2017	10:32 AM	26.4	<46000	<46000	<46000	<46000	<46000	<46000	400,000	<46000	<46000	400,000
SB-6	0-1	7/6/2017	10:38 AM	7.9	<72	<72	<72	<72	<72	<72	950	<72	<72	950
SB-7	0-1	7/6/2017	10:50 AM	6.1	<3600	<3600	<3600	<3600	<3600	<3600	31,000	<3600	<3600	31,000
	1-2	7/6/2017	10:55 AM	9	<370	<370	<370	<370	<370	<370	2,900	<370	<370	2,900
	2-3	7/6/2017	11:00 AM	16.2	<160	<160	<160	<160	<160	<160	2,700	<160	<160	2,700
SB-8	0-1	7/6/2017	11:03 AM	9.7	<15000	<15000	<15000	<15000	<15000	<15000	170,000	<15000	<15000	170,000
	1-2	7/6/2017	11:05 AM	7.4	<72	<72	<72	<72	<72	<72	590	<72	<72	590
	2-3	7/6/2017	11:08 AM	12.8	<77	<77	<77	<77	<77	<77	340	<77	<77	340
SB-9	0-1	7/6/2017	11:45 AM	7.6	<720	<720	<720	<720	<720	<720	10,000	<720	<720	10,000
	1-2	7/6/2017	11:48 AM	6.1	<71	<71	<71	<71	<71	<71	1,500	<71	<71	1,500
	2-3	7/6/2017	11:51 AM	9.9	<74	<74	<74	<74	<74	<74	<74	<74	<74	<74
SB-11	0-1	7/6/2017	11:54 AM	6.4	<3600	<3600	<3600	<3600	<3600	<3600	78,000	<3600	<3600	78,000
	1-2	7/6/2017	11:55 AM	6.5	<72	<72	<72	<72	<72	<72	1,600	<72	<72	1,600
	2-3	7/6/2017	11:57 AM	6.9	<720	<720	<720	<720	<720	<720	6,600	<720	<720	6,600
SB-12	0-1	7/6/2017	12:01 PM	17.2	<20000	<20000	<20000	<20000	<20000	<20000	340,000	<20000	<20000	340,000
	1-2	7/6/2017	12:03 PM	14.2	<7800	<7800	<7800	<7800	<7800	<7800	68,000	<7800	<7800	66,000
	2-3	7/6/2017	12:05 PM	22.1	<8600	<8600	<8600	<8600	<8600	<8600	76,000	<8600	<8600	76,000
SB-13	0-1	7/6/2017	12:09 PM	8.1	<15000	<15000	<15000	<15000	<15000	<15000	190,000	<15000	<15000	190,000
	1-2	7/6/2017	12:11 PM	15.8	<200000	<200000	<200000	<200000	<200000	<200000	2,000,000	<200000	<200000	2,000,000
	2-3	7/6/2017	12:13 PM	14.7	<16000	<16000	<16000	<16000	<16000	<16000	180,000	<16000	<16000	180,000
SB-14	0-1	7/10/2017	8:25 AM	12.5	<150000	<150000	<150000	<150000	<150000	<150000	1,800,000	<150000	<150000	1,800,000
	1-2	7/10/2017	8:31 AM	8.8	<15000	<15000	<15000	<15000	<15000	<15000	99,000	<15000	<15000	99,000
	2-3	7/10/2017	8:34 AM	14.1	<160000	<160000	<160000	<160000	<160000	<160000	3,500,000	<160000	<160000	3,500,000
SB-15	0-1	7/7/2017	9:10 AM	24.1	<880000	<880000	<880000	<880000	<880000	<880000	11,000,000	<880000	<880000	11,000,000
	1-2	7/7/2017	9:18 AM	15.2	<790000	<790000	<790000	<790000	<790000	<790000	12,000,000	<790000	<790000	12,000,000
	2-3	7/7/2017	9:28 AM	17	<810000	<810000	<810000	<810000	<810000	<810000	11,000,000	<810000	<810000	11,000,000
	5.5-6.5	7/7/2017	9:28 AM	20.2	<8400	<8400	<8400	<8400	<8400	<8400	190,000	<8400	<8400	190,000
SB-16	0-1	7/10/2017	8:48 AM	22.5	<170000	<170000	<170000	<170000	<170000	<170000	3,300,000	<170000	<170000	3,300,000
	1-2	7/10/2017	8:51 AM	20	<42000	<42000	<42000	<42000	<42000	<42000	560,000	<42000	<42000	560,000
	2-3	7/10/2017	8:54 AM	16.6	<40000	<40000	<40000	<40000	<40000	<40000	820,000	<40000	<40000	820,000

Table 1

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8082A

Location	Depth (ft BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
SB-17	0-1	7/10/2017	8:37 AM	9.3	<74000	<74000	<74000	<74000	<74000	<74000	1,100,000	<74000	<74000	1,100,000
	1-2	7/10/2017	8:40 AM	10.7	<75000	<75000	<75000	<75000	<75000	<75000	890,000	<75000	<75000	890,000
	2-3	7/10/2017	8:45 AM	8.8	<7300	<7300	<7300	<7300	<7300	<7300	110,000	<7300	<7300	110,000
SB-18	0-1	7/7/2017	9:58 AM	13.8	<16000	<16000	<16000	<16000	<16000	<16000	180,000	<16000	<16000	180,000
	1-2	7/7/2017	10:00 AM	9	<1800	<1800	<1800	<1800	<1800	<1800	22,000	<1800	<1800	22,000
	2-3	7/7/2017	10:10 AM	13	<77	<77	<77	<77	<77	<77	750	<77	<77	750
SB-19	0-1	7/10/2017	9:12 AM	20.3	<420	<420	<420	<420	<420	<420	3,800	<420	<420	3,800
	1-2	7/10/2017	9:15 AM	9.6	<74	<74	<74	<74	<74	<74	1,100	<74	<74	1,100
	2-3	7/10/2017	9:17 AM	11.8	<150	<150	<150	<150	<150	<150	1,800	<150	<150	1,800
SB-31	0-1	7/10/2017	9:22 AM	22.5	<4300	<4300	<4300	<4300	<4300	<4300	52,000	<4300	<4300	52,000
	1-2	7/10/2017	9:24 AM	13	<3800	<3800	<3800	<3800	<3800	<3800	35,000	<3800	<3800	35,000
	2-3	7/10/2017	9:31 AM	15.6	<79	<79	<79	<79	<79	<79	470	<79	<79	470
SB-32	0-1	7/10/2017	9:35 AM	26.2	<180	<180	<180	<180	<180	<180	1,900	<180	<180	1,900
	1-2	7/10/2017	9:36 AM	25.7	<45000	<45000	<45000	<45000	<45000	<45000	490,000	<45000	<45000	490,000
	2-3	7/10/2017	9:37 AM	20.3	<840	<840	<840	<840	<840	<840	7,500	<840	<840	7,500
SB-33	0-1	7/10/2017	10:06 AM	18.5	<8200	<8200	<8200	<8200	<8200	<8200	93,000	<8200	<8200	93,000
	1-2	7/10/2017	10:07 AM	20.8	<850	<850	<850	<850	<850	<850	12,000	<850	<850	12,000
	2-3	7/10/2017	10:08 AM	7.7	<73	<73	<73	<73	<73	<73	250	<73	<73	250
SB-34	0-1	7/10/2017	10:30 AM	13.9	<3900	<3900	<3900	<3900	<3900	<3900	42,000	<3900	<3900	42,000
	1-2	7/10/2017	10:33 AM	10.3	<370	<370	<370	<370	<370	<370	4,200	<370	<370	4,200
	2-3	7/10/2017	10:36 AM	11.2	<75	<75	<75	<75	<75	<75	350	<75	<75	350
NYCRR 375-6: Commercial				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted				n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

Notes:

n/a - Not applicable

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: 8260C

Location	SB-13	SB-15	SB-19	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	4-5	4-5	1-2			
Date Collected	7/26/2017	7/26/2017	7/26/2017			
Time Collected	11:25 AM	9:52 AM	8:39 AM			
Moisture (%)	30.3	23.7	9.3			
1,1 Dichloroethane	<480	<1900	<0.8	240,000	480,000	270
1,1 Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	330
1,1,1 Trichloroethane	<480	<1900	<0.8	500,000	1,000,000	680
1,1,2 Trichloroethane	<480	<1900	<0.8	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<480	<1900	<0.8	n/a	n/a	n/a
1,2 Dibromoethane	<480	<1900	<0.8	n/a	n/a	n/a
1,2 Dichlorobenzene	390 J	25,000	<0.8	500,000	1,000,000	1,100
1,2 Dichloroethane	<480	<1900	<0.8	30,000	60,000	20
1,2 Dichloropropane	<480	<1900	<0.8	n/a	n/a	n/a
1,2,3 Trichlorobenzene	29,000	36,000	<0.8	n/a	n/a	n/a
1,2,4 Trichlorobenzene	120,000	690,000	0.40 J	n/a	n/a	n/a
1,3 Dichlorobenzene	210 J	240,000	0.21 J	280,000	560,000	2,400
1,4 Dichlorobenzene	890	130,000	0.16 J	130,000	250,000	1,800
1,4-Dioxane	<24000	<95000	<16	130,000	250,000	100
2-Hexanone	<2400	<9500	<4	n/a	n/a	n/a
4-Methyl-2-Pentanone	<2400	<9500	<4	n/a	n/a	n/a
Acetone	<2400	<9500	56	500,000	1,000,000	50
Benzene	<480	<1900	<0.8	44,000	89,000	60
Bromochloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Bromodichloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Bromoform	<480	<1900	<0.8	n/a	n/a	n/a
Bromomethane	<480	<1900	<0.8	n/a	n/a	n/a
c 1,3 Dichloropropene	<480	<1900	<0.8	n/a	n/a	n/a
Carbon Disulfide	<480	<1900	<0.8	n/a	n/a	n/a
Carbon Tetrachloride	<480	<1900	<0.8	22,000	44,000	760
Chlorobenzene	<480	3,200	<0.8	500,000	1,000,000	1,100
Chloroethane	<480	<1900	<0.8	n/a	n/a	n/a
Chloroform	<480	<1900	<0.8	350,000	700,000	370
Chloromethane	<480	<1900	<0.8	n/a	n/a	n/a
cis-1,2-Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	250
Cyclohexane	<480	<1900	<0.8	n/a	n/a	n/a
Cyclohexane, methyl-	<480	<1900	<0.8	n/a	n/a	n/a
Dibromochloromethane	<480	<1900	<0.8	n/a	n/a	n/a
Dibromochloropropane	<480	<1900	<0.8	n/a	n/a	n/a
Dichlorodifluoromethane	<480	<1900	<0.8	n/a	n/a	n/a
Ethylbenzene	<480	<1900	<0.8	390,000	780,000	1,000
Freon 113	<480	<1900	<0.8	n/a	n/a	n/a

Table 2

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, July 2017 (ug/Kg)

TestAmerica, Inc.

Methods: 8260C

Location	SB-13	SB-15	SB-19	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	4-5	4-5	1-2			
Date Collected	7/26/2017	7/26/2017	7/26/2017			
Time Collected	11:25 AM	9:52 AM	8:39 AM			
Moisture (%)	30.3	23.7	9.3			
Isopropylbenzene	<480	<1900	<0.8	n/a	n/a	n/a
m + p Xylene	<480	<1900	0.16 J	n/a	n/a	n/a
Methyl acetate	<2400	<9500	<4	n/a	n/a	n/a
Methyl Ethyl Ketone	<2400	<9500	2.60 J	500,000	1,000,000	120
Methylene Chloride	<480	<1900	0.69 J	500,000	1,000,000	50
o-Xylene	<480	<1900	<0.8	n/a	n/a	n/a
Styrene	<480	<1900	<0.8	n/a	n/a	n/a
t 1,3 Dichloropropene	<480	<1900	<0.8	n/a	n/a	n/a
t butylmethylether	<480	<1900	0.16 J	500,000	1,000,000	930
Tetrachloroethene	<480	<1900	<0.8	150,000	300,000	1,300
Toluene	<480	<1900	<0.8	500,000	1,000,000	700
trans-1,2-Dichloroethene	<480	<1900	<0.8	500,000	1,000,000	190
Trichloroethylene	<480	<1900	<0.8	200,000	400,000	470
Trichlorofluoromethane	<480	<1900	<0.8	n/a	n/a	n/a
Vinyl Chloride	<480	<1900	<0.8	13,000	27,000	20
1,2,3,4- Tetrachlorobenzene	4,800 JN !	n/a	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	3,200 JN !	14,000 JN !	n/a	n/a	n/a	n/a
Calculated						
Total VOCs	158,490	1,138,200	60.4	n/a	n/a	n/a
Total BTEX	<2400	<9500	0.16	n/a	n/a	n/a
Total Xylenes	<960	<3800	0.16	500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

Table 3

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8082A

Location	Depth (ft BGS)	Date Collected	Time Collected	Moisture (%)	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
					<39000	<39000	<39000	<39000	<39000	<39000	<39000	<39000	<39000	<39000
SB-36D	6-8	9/27/2017	11:40 AM	14.1	<39000	<39000	<39000	<39000	<39000	<39000	660,000	<39000	<39000	660,000
SB-37D	0-4	9/28/2017	8:45 AM	10.2	<75000	<75000	<75000	<75000	<75000	<75000	810,000	<75000	<75000	810,000
	4-8	9/28/2017	8:50 AM	17.7	<810000	<810000	<810000	<810000	<810000	<810000	9,400,000	<810000	<810000	9,400,000
	8-12	9/28/2017	8:57 AM	18.5	<8200	<8200	<8200	<8200	<8200	<8200	140,000	<8200	<8200	140,000
	12-16	9/28/2017	9:05 AM	18.5	<410000	<410000	<410000	<410000	<410000	<410000	8,300,000	<410000	<410000	8,300,000
	16-20	9/28/2017	9:12 AM	11.5	<380000	<380000	<380000	<380000	<380000	<380000	4,800,000	<380000	<380000	4,800,000
	20-24	9/28/2017	9:28 AM	12.9	<380000	<380000	<380000	<380000	<380000	<380000	5,500,000	<380000	<380000	5,500,000
SB-38D	0-4	9/28/2017	12:23 PM	7.6	<140	<140	<140	<140	<140	<140	2,000	<140	<140	1,800
	4-8	9/28/2017	12:28 PM	14.9	<390	<390	<390	<390	<390	<390	4,300	<390	<390	4,300
	8-12	9/28/2017	12:35 PM	21.9	<1700	<1700	<1700	<1700	<1700	<1700	18,000	<1700	<1700	18,000
	12-16	9/28/2017	12:46 PM	14.6	<160	<160	<160	<160	<160	<160	2,200	<160	<160	2,200
	16-20	9/28/2017	1:03 PM	15.2	<79	<79	<79	<79	<79	<79	71 J	<79	<79	71 J
	20-24	9/28/2017	1:20 PM	10.8	<75	<75	<75	<75	<75	<75	120	<75	<75	120
NYCRR 375-6: Commercial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Table 4

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
1,1 Dichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	240,000	480,000	270
1,1 Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	330
1,1,1 Trichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	680
1,1,2 Trichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2 Dibromoethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2 Dichlorobenzene	250 J	11,000	480	15,000	<0.85	0.29 J	0.79	500,000	1,000,000	1,100
1,2 Dichloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	30,000	60,000	20
1,2 Dichloropropane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
1,2,3 Trichlorobenzene	55,000	1,200,000	20,000	660,000	1.6	120	1.6	n/a	n/a	n/a
1,2,4 Trichlorobenzene	210,000	2,800,000	81,000	2,900,000	6.4	340	9.4	n/a	n/a	n/a
1,3 Dichlorobenzene	<980	31,000	920	<14000	0.16 J	1.1	3.5	280,000	560,000	2,400
1,4 Dichlorobenzene	680 J	19,000	820	26,000	0.22 J	1.3	2.6	130,000	250,000	1,800
1,4-Dioxane	<49000	<530000	<9100	<700000	<17	<17	<14	130,000	250,000	100
2-Hexanone	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
4-Methyl-2-Pentanone	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
Acetone	<4900	<53000	<910	<70000	24	74	21	500,000	1,000,000	50
Benzene	<980	<11000	<180	<14000	0.64 J	<0.86	0.21 J	44,000	89,000	60
Bromochloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromodichloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromoform	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Bromomethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
c 1,3 Dichloropropene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Carbon Disulfide	<980	<11000	<180	<14000	<0.85	0.47 J	<0.7	n/a	n/a	n/a
Carbon Tetrachloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	22,000	44,000	760



Table 4

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24			
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017			
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM			
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8			
Chlorobenzene	<980	<11000	<180	<14000	0.46 J	2.3	2.7	500,000	1,000,000	1,100
Chloroethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Chloroform	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	350,000	700,000	370
Chloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
cis-1,2-Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	250
Cyclohexane	<980	<11000	<180	<14000	0.37 J	<0.86	<0.7	n/a	n/a	n/a
Cyclohexane, methyl-	<980	<11000	<180	<14000	0.23 J	<0.86	<0.7	n/a	n/a	n/a
Dibromochloromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Dibromochloropropane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Dichlorodifluoromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Ethylbenzene	<980	<11000	<180	<14000	0.26 J	<0.86	<0.7	390,000	780,000	1,000
Freon 113	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
Isopropylbenzene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
m + p Xylene	<980	<11000	<180	<14000	0.79 J	0.60 J	0.17 J	n/a	n/a	n/a
Methyl acetate	<4900	<53000	<910	<70000	<4.2	<4.3	<3.5	n/a	n/a	n/a
Methyl Ethyl Ketone	<4900	<53000	<910	<70000	2.90 J	6.5	1.90 J	500,000	1,000,000	120
Methylene Chloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	50
o-Xylene	<980	<11000	<180	<14000	0.28 J	0.27 J	0.09 J	n/a	n/a	n/a
Styrene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
t 1,3 Dichloropropene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	n/a	n/a	n/a
t butylmethylether	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	930
Tetrachloroethene	<980	<11000	<180	<14000	0.74 J	<0.86	<0.7	150,000	300,000	1,300
Toluene	<980	<11000	<180	<14000	2.1	<0.86	<0.7	500,000	1,000,000	700
trans-1,2-Dichloroethene	<980	<11000	<180	<14000	<0.85	<0.86	<0.7	500,000	1,000,000	190
Trichloroethylene	<980	<11000	<180	<14000	0.22 J	<0.86	<0.7	200,000	400,000	470

Table 4

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8
Trichlorofluoromethane	<980	<11000	<180	<14000	<0.85	<0.86	<0.7
Vinyl Chloride	<980	<11000	<180	<14000	<0.85	<0.86	<0.7
1,2,3,4- Tetrachlorobenzene	7,900 JN !	520,000 JN !	2,200 JN !	100,000 JN !	n/a	74 JN !	n/a
1,2,3,5-tetrachlorobenzene	5,300 JN !	630,000 JN !	n/a	520,000 JN !	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	n/a	260,000 JN !	n/a	n/a	n/a	23 JN !	n/a
2 Methylbutane	n/a	n/a	n/a	n/a	13 JN !	n/a	n/a
Pentane	n/a	n/a	n/a	n/a	5.80 JN !	n/a	n/a

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
n/a	n/a	n/a
13,000	27,000	20
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Calculated	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Total BTEX	<4900	<55000	<900	<70000	4.00	0.87 J	0.47 J
Total VOCs	279,130	5,471,000	105,420	4,221,000	60.17	643.83	43.96
Total Xylenes	<1960	<22000	<360	<28000	1.07 J	0.87 J	0.26 J

n/a	n/a	n/a
n/a	n/a	n/a
500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

Table 5

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted				
	6-8	4-8	8-12	20-24	4-8	8-12	20-24							
	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017							
	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM							
	Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9				10.8			
	1,1-Biphenyl	52 J	<8000	<400	<3800	<390	<420				<370	n/a	n/a	n/a
	1,2,4,5-Tetrachlorobenzene	4,200	79,000	890	48,000	<390	<420				<370	n/a	n/a	n/a
	2,3,4,6-Tetrachlorophenol	<380	<8000	<400	<3800	<390	<420				<370	n/a	n/a	n/a
2,4,5-Trichlorophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2,4,6-Trichlorophenol	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a				
2,4-Dichlorophenol	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a				
2,4-Dimethylphenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2,4-Dinitrophenol	<310	<6500	<330	<3100	<310	<340	<300	n/a	n/a	n/a				
2,4-Dinitrotoluene	<78	<1600	<82	<770	<79	<86	<75	n/a	n/a	n/a				
2,6-Dinitrotoluene	<78	<1600	<82	<770	<79	<86	<75	n/a	n/a	n/a				
2-Chloronaphthalene	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2-Chlorophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2-Methyl-4,6-dinitrophenol	<310	<6500	<330	<3100	<310	<340	<300	n/a	n/a	n/a				
2-Methylnaphthalene	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
2-Nitrophenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
3,3-Dichlorobenzidine	<150	<3200	<160	<1500	<160	<170	<150	n/a	n/a	n/a				
3-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Bromophenyl-phenylether	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Chloro-3-methylphenol	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Chloroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Chlorophenyl-phenylether	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Nitroaniline	<380	<8000	<400	<3800	<390	<420	<370	n/a	n/a	n/a				
4-Nitrophenol	<780	<16000	<820	<7700	<790	<860	<750	n/a	n/a	n/a				

Table 5

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8
Acenaphthene	<380	<8000	<400	<3800	<390	<420	<370
Acenaphthylene	<380	<8000	<400	<3800	<390	<420	<370
Acetophenone	<380	<8000	<400	<3800	<390	<420	<370
Anthracene	<380	<8000	<400	<3800	<390	<420	<370
Atrazine	<150	<3200	<160	<1500	<160	<170	<150
Benzaldehyde	<380	<8000	<400	<3800	<390	<420	<370
Benzo(a)anthracene	<38	<800	<40	<380	<39	<42	<37
Benzo(a)pyrene	<38	<800	<40	<380	<39	<42	<37
Benzo(b)fluoranthene	49	<800	<40	<380	<39	<42	<37
Benzo(g,h,i)perylene	<380	<8000	<400	<3800	<390	<420	<370
Benzo(k)fluoranthene	<38	<800	<40	<380	<39	<42	<37
bis(2-Chloroethoxy)methane	<380	<8000	<400	<3800	<390	<420	<370
bis(2-Chloroethyl)ether	<38	<800	<40	<380	<39	<42	<37
bis(2-Chloroisopropyl)ether	<380	<8000	<400	<3800	<390	<420	<370
bis(2-Ethylhexyl)phthalate	<380	<8000	<400	<3800	<390	<420	<370
Butylbenzylphthalate	<380	<8000	<400	<3800	<390	<420	<370
Caprolactam	<380	<8000	<400	<3800	<390	<420	<370
Carbazole	<380	<8000	<400	<3800	<390	<420	<370
Chrysene	<380	<8000	<400	<3800	<390	<420	<370
Dibenzo(a,h)anthracene	<38	<800	<40	<380	<39	<42	<37
Dibenzofuran	<380	<8000	<400	<3800	<390	<420	<370
Diethylphthalate	<380	<8000	<400	<3800	<390	<420	<370
Dimethylphthalate	<380	<8000	<400	<3800	<390	<420	<370
Di-n-butylphthalate	<380	<8000	<400	<3800	<390	<420	<370

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
500,000	1,000,000	20,000
500,000	1,000,000	100,000
n/a	n/a	n/a
500,000	1,000,000	100,000
n/a	n/a	n/a
n/a	n/a	n/a
5,600	11,000	1,000
1,000	1,100	1,000
5,600	11,000	1,000
500,000	1,000,000	100,000
56,000	110,000	800
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
56,000	110,000	1,000
560	1,100	330
350,000	1,000,000	7,000
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Table 5

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8
Di-n-octylphthalate	<380	<8000	<400	<3800	<390	<420	<370
Fluoranthene	<380	<8000	<400	<3800	<390	<420	<370
Fluorene	<380	<8000	<400	<3800	<390	<420	<370
Hexachlorobenzene	710	4,700	<40	3,300	<39	<42	<37
Hexachlorobutadiene	<78	<1600	<82	<770	<79	<86	<75
Hexachlorocyclopentadiene	<380	<8000	<400	<3800	<390	<420	<370
Hexachloroethane	<38	<800	<40	<380	<39	<42	<37
Indeno(1,2,3-cd)pyrene	<38	<800	<40	<380	<39	<42	<37
Isophorone	<150	<3200	<160	<1500	<160	<170	<150
Naphthalene	<380	<8000	<400	<3800	<390	<420	<370
Nitrobenzene	<38	<800	<40	<380	<39	<42	<37
N-Nitrosodi-N-Propylamine	<38	<800	<40	<380	<39	<42	<37
N-Nitrosodiphenylamine	<380	<8000	<400	<3800	<390	<420	<370
o-cresol	<380	<8000	<400	<3800	<390	<420	<370
p-cresol	<380	<8000	<400	<3800	<390	<420	<370
Pentachlorophenol	<310	<6500	<330	<3100	<310	<340	<300
Phenanthrene	<380	<8000	<400	530 J	<390	<420	<370
Phenol (total)	<380	<8000	<400	<3800	<390	<420	<370
Pyrene	<380	<8000	<400	<3800	<390	<420	<370
1,2,3 Trichlorobenzene	n/a	250,000 JN !	10,000 JN !	160,000 JN !	n/a	n/a	n/a
1,2,3,5-tetrachlorobenzene	n/a	150,000 JN !	2,200 JN !	100,000 JN !	n/a	n/a	n/a
1,2,4 Trichlorobenzene	38,000 !	n/a	n/a	n/a	n/a	n/a	n/a
1,3,5-TRICHLOROBENZENE	8,200 JN !	640,000 JN !	2,500 JN !	n/a	n/a	n/a	n/a
Octachlorobiphenyl; 2,2",3,3",4,5,6,6"- (PCB 200)	n/a	75,000 JN !	n/a	n/a	n/a	n/a	n/a

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
n/a	n/a	n/a
500,000	1,000,000	100,000
500,000	1,000,000	30,000
6,000	12,000	330
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
5,600	11,000	500
n/a	n/a	n/a
500,000	1,000,000	12,000
n/a	n/a	n/a
n/a	n/a	n/a
500,000	1,000,000	330
500,000	1,000,000	330
6,700	55,000	800
500,000	1,000,000	100,000
500,000	1,000,000	330
500,000	1,000,000	100,000
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Table 5

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	4-8	8-12	20-24	4-8	8-12	20-24
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	8:50 AM	8:57 AM	9:28 AM	12:28 PM	12:35 PM	1:20 PM
Moisture (%)	14.1	17.7	18.5	12.9	14.9	21.9	10.8
Unknown SVOC w/ highest conc.	19,000 J!	120,000 J!	2,100 J!	130,000 J!	n/a	700 J!	n/a
Unknown SVOC w/ 2nd highest conc.	6,000 J!	110,000 J!	1,600 J!	56,000 J!	n/a	n/a	n/a
Unknown SVOC w/ 3rd highest conc.	5,000 J!	110,000 J!	n/a	54,000 J!	n/a	n/a	n/a
Unknown SVOC w/ 4th highest conc. (All	3,900 J!	100,000 J!	n/a	33,000 J!	n/a	n/a	n/a
Unknown SVOC w/ 5th highest conc.	3,900 J!	87,000 J!	n/a	30,000 J!	n/a	n/a	n/a
Unknown SVOC w/ 6th highest conc.	n/a	67,000 J!	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ 7th highest conc. (All	n/a	61,000 J!	n/a	n/a	n/a	n/a	n/a

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Calculated							
Total SVOC's	89,011	1,853,700	19,290	614,830	<20,346	700	<19,312

n/a	n/a	n/a
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Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits or reported as a TIC.

n/a - not analyzed / not applicable

Table 6

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, September 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D
Depth (ft BGS)	6-8	20-24	4-8	8-12	20-24	4-8	8-12
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017
Time Collected	11:40 AM	9:28 AM	8:50 AM	8:57 AM	1:20 PM	12:28 PM	12:35 PM
Moisture (%)	14.1	12.9	17.7	18.5	10.8	14.9	21.9
4,4,-DDT	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
4,4-DDD	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
4,4-DDE	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Aldrin	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
alpha BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
beta BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Chlordane	<1600	<1500	<1600	<82	<75	<79	<86
delta-BHC	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Dieldrin	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Endosulfan I	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endosulfan II	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endosulfan Sulfate	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin Aldehyde	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Endrin ketone	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Gamma-BHC(Lindane)	<47	<46	<49	<2.5	<2.2	<2.3	<2.6
Heptachlor	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Heptachlor Epoxide	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Methoxychlor	<160	<150	<160	<8.2	<7.5	<7.9	<8.6
Toxaphene	<1600	<1500	<1600	<82	<75	<79	<86

NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
47,000	94,000	3.3
92,000	180,000	3.3
62,000	120,000	3.3
680	1,400	5
3,400	6,800	20
3,000	14,000	36
n/a	n/a	n/a
500,000	1,000,000	40
1,400	2,800	5
200,000	920,000	2,400
200,000	920,000	2,400
200,000	920,000	2,400
89,000	410,000	14
n/a	n/a	n/a
n/a	n/a	n/a
9,200	23,000	100
15,000	29,000	42
n/a	n/a	n/a
n/a	n/a	n/a
n/a	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Table 7

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil Analytical Results - Temporary Soil Borings, September 2017 (mg/Kg)

TestAmerica, Inc.

Methods: SW6010C, SW7471B, SW9012

Location	SB-36D	SB-37D	SB-37D	SB-37D	SB-38D	SB-38D	SB-38D	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	6-8	20-24	4-8	8-12	20-24	4-8	8-12	n/a	n/a	n/a
Date Collected	9/27/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	9/28/2017	n/a	n/a	n/a
Time Collected	11:40 AM	9:28 AM	8:50 AM	8:57 AM	1:20 PM	12:28 PM	12:35 PM	16	16	13
Moisture (%)	14.1	12.9	17.7	18.5	10.8	14.9	21.9	400	10,000	350
Aluminum	3,950	1,900	2,780	2,170	2,720	2,870	4,540	590	2,700	7.2
Antimony	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	9.3	60	2.5
Arsenic	2 J	<2.6	1.20 J	1.10 J	0.92 J	1.40 J	1.80 J	n/a	n/a	n/a
Barium	34.30 J	24.90 J	17.20 J	26.80 J	23.10 J	28.70 J	40.10 J	n/a	n/a	n/a
Beryllium	0.29 J	0.21 J	0.27 J	0.21 J	0.18 J	0.19 J	0.25 J	n/a	n/a	n/a
Cadmium	<0.69	<0.69	<0.79	<0.74	<0.87	<0.92	<0.96	n/a	n/a	n/a
Calcium	6,380	672 J	6,090	5,670	900 J	3,960	40,800	270	10,000	50
Chromium (total)	9.6	5.1	7.6	6.3	7.3	7.1	9.1	27	10,000	27
Cobalt	4.60 J	2.70 J	4.20 J	2.80 J	2.80 J	3.20 J	3.30 J	n/a	n/a	n/a
Copper	10.2	6.7	12.4	7.5	6.6	8.3	8.9	1,000	3,900	63
Cyanide	<0.28	<0.26	<0.28	<0.31	<0.27	<0.27	<0.31	n/a	n/a	n/a
Iron	9,790	7,730	7,840	7,200	6,700	6,780	7,140	10,000	10,000	1,600
Lead	53.5	2.2	14.7	4.1	2.5	7.4	8.9	2.8	5.7	0.18
Magnesium	2,960	1,040	3,140	2,930	1,330	2,670	7,880	310	10,000	30
Manganese	222	174	158	135	191	181	216	n/a	n/a	n/a
Mercury	0.04	<0.017	0.09	<0.019	<0.018	0.01 J	0.02	1,500	6,800	3.9
Nickel	19.2	6.10 J	11.5	9.7	6 J	11.9	12.6	1,500	6,800	2
Potassium	923	341 J	692 J	666 J	484 J	820 J	740 J	n/a	n/a	n/a
Selenium	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	n/a	n/a	n/a
Silver	<1.7	<1.7	<2	<1.8	<2.2	<2.3	<2.4	n/a	n/a	n/a
Sodium	92.30 J	73.40 J	<988	<922	119 J	111 J	162 J	n/a	n/a	n/a
Thallium	<3.4	<3.4	<4	<3.7	<4.4	<4.6	<4.8	n/a	n/a	n/a
Vanadium	13.3	11.2	11.6	9.7	10.9	9.20 J	12.5	n/a	n/a	n/a
Zinc	30	10.9	20.4	16.7	12.8	21.2	20.1	10,000	10,000	109

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable



Table 8

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/7/2017	7/7/2017	7/10/2017		
Time Collected	10:30 AM	9:50 AM	9:50 AM		
Aroclor 1016	<40	<80	<0.4	n/a	n/a
Aroclor 1221	<40	<80	<0.4	n/a	n/a
Aroclor 1232	<40	<80	<0.4	n/a	n/a
Aroclor 1242	<40	<80	<0.4	n/a	n/a
Aroclor 1248	<40	<80	<0.4	n/a	n/a
Aroclor 1254	<40	<80	<0.4	n/a	n/a
Aroclor 1260	290	1,000	7.3	n/a	n/a
Aroclor 1262	<40	<80	<0.4	n/a	n/a
Aroclor 1268	<40	<80	<0.4	n/a	n/a
Polybrominated biphenyls (total)	290	1,000	7.3	5	n/a

DISSOLVED					
Date Collected	8/9/2017	8/9/2017	8/9/2017		
Time Collected	11:20 AM	10:40 AM	10:00 AM		
Aroclor 1016	<0.4	<2	<0.4	n/a	n/a
Aroclor 1221	<0.4	<2	<0.4	n/a	n/a
Aroclor 1232	<0.4	<2	<0.4	n/a	n/a
Aroclor 1242	<0.4	<2	<0.4	n/a	n/a
Aroclor 1248	<0.4	<2	<0.4	n/a	n/a
Aroclor 1254	<0.4	<2	<0.4	n/a	n/a
Aroclor 1260	3.1	1.40 DJ	0.33 J	n/a	n/a
Aroclor 1262	<0.4	<2	<0.4	n/a	n/a
Aroclor 1268	<0.4	<2	<0.4	n/a	n/a
Polybrominated biphenyls (total)	3.1	1.40 DJ	0.33 J	5	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

D - Indicates sample was diluted in the laboratory

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Table 9

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
1,1 Dichloroethane	<1	<10	<1	5	n/a
1,1 Dichloroethene	<1	<10	<1	5	n/a
1,1,1 Trichloroethane	<1	<10	<1	5	n/a
1,1,2 Trichloroethane	<1	<10	<1	1	n/a
1,1,2,2 Tetrachloroethane	<1	<10	<1	5	n/a
1,2 Dibromoethane	<1	n/a	<1	0.001	n/a
1,2 Dichlorobenzene	<1	300	<1	3	n/a
1,2 Dichloroethane	<1	<10	<1	0.6	n/a
1,2 Dichloropropane	<1	<10	<1	1	n/a
1,2,3 Trichlorobenzene	81	720	<1	5	n/a
1,2,4 Trichlorobenzene	67	3,100	0.40 J	5	n/a
1,3 Dichlorobenzene	0.73 J	1,000	0.52 J	3	n/a
1,4 Dichlorobenzene	0.42 J	440	<1	3	n/a
1,4-Dioxane	<0.4	<0.8	<0.4	n/a	n/a
2-Hexanone	<5	<50	<5	n/a	50
4-Methyl-2-Pentanone	<5	<50	<5	n/a	n/a
Acetone	14	<50	23	n/a	50
Benzene	0.22 J	1.60 J	<1	1	n/a
Bromochloromethane	<1	<10	<1	5	n/a
Bromodichloromethane	<1	<10	<1	n/a	50
Bromoform	<1	<10	<1	n/a	50
Bromomethane	<1	<10	<1	5	n/a
c 1,3 Dichloropropene	<1	<10	<1	n/a	n/a
Carbon Disulfide	<1	<10	<1	n/a	60
Carbon Tetrachloride	<1	<10	<1	5	n/a
Chlorobenzene	<1	120	<1	5	n/a
Chloroethane	<1	<10	<1	5	n/a
Chloroform	<1	<10	<1	7	n/a
Chloromethane	<1	<10	<1	5	n/a
cis-1,2-Dichloroethene	<1	<10	<1	5	n/a
Cyclohexane	<1	<10	<1	n/a	n/a

Table 9

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Cyclohexane, methyl-	<1	<10	<1	n/a	n/a
Dibromochloromethane	<1	<10	<1	n/a	50
Dibromochloropropane	<1	<10	<1	0.04	n/a
Dichlorodifluoromethane	<1	<10	<1	5	n/a
Ethylbenzene	<1	<10	<1	5	n/a
Freon 113	<1	<10	<1	5	n/a
Isopropylbenzene	<1	<10	<1	5	n/a
m + p Xylene	<1	<10	<1	5*	n/a
Methyl acetate	<5	<50	<5	n/a	n/a
Methyl Ethyl Ketone	<5	<50	<5	n/a	50
Methylene Chloride	<1	<10	<1	5	n/a
o-Xylene	<1	<10	<1	5	n/a
Styrene	<1	<10	<1	5	n/a
t 1,3 Dichloropropene	<1	<10	<1	n/a	n/a
t butylmethylether	<1	<10	<1	n/a	10
Tetrachloroethene	<1	<10	0.44 J	5	n/a
Toluene	<1	<10	<1	5	n/a
trans-1,2-Dichloroethene	<1	<10	<1	5	n/a
Trichloroethylene	<1	<10	<1	5	n/a
Trichlorofluoromethane	<1	<10	<1	5	n/a
Vinyl Chloride	<1	<10	<1	2	n/a
Calculated					
Total VOC's	163.37	5,681.60	24.36	n/a	n/a
SW8260C-SIM Total	<0.4	<0.8	<0.4	n/a	n/a
Total BTEX	0.22	2	<5	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Table 10

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
1,1-Biphenyl	<10	<10	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	15	42	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	0.90 J	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	<10	<10	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<20	<20	<20	n/a	10
2,4-Dinitrotoluene	<2	<2	<2	5	n/a
2,6-Dinitrotoluene	<2	<2	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<20	<20	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	5	n/a
4-Nitrophenol	<20	<20	<20	n/a	n/a
Acenaphthene	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	n/a	50
Atrazine	<2	<2	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	n/a	n/a
Benzo(a)anthracene	<1	<1	<1	n/a	0.002

Table 10

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Benzo(a)pyrene	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	5	n/a
bis(2-Ethylhexyl)phthalate	<2	<2	<2	5	n/a
Butylbenzylphthalate	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	n/a	n/a
Chrysene	<2	<2	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	n/a	50
Di-n-butylphthalate	1.10 J	<10	1.20 J	50	n/a
Di-n-octylphthalate	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	n/a	n/a
N-Nitrosodiphenylamine	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	n/a	n/a

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
p-cresol	<10	<10	<10	n/a	n/a
Pentachlorophenol	<20	<20	<20	1.5	n/a
Phenanthrene	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	210 JN !	n/a	3	n/a
1,2,3 Trichlorobenzene	190 JN !	700 JN !	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	72 JN !	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	n/a	150 JN !	n/a	n/a	n/a
1,3 Dichlorobenzene	n/a	79 JN !	n/a	3	n/a
Pentachlorobenzene	6.90 JN !	29 JN !	n/a	5	n/a
Unknown Semivolatile w/ 2nd Highest Conc.	65 J !	130 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 3rd Highest Conc.	22 JN !	110 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 4th Highest Conc.	13 J !	89 JN !	n/a	n/a	n/a
Unknown Semivolatile w/ 5th Highest Conc.	9.50 J !	38 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 6th Highest Conc.	8.90 J !	31 J !	n/a	n/a	n/a
Unknown Semivolatile w/ 7th Highest Conc.	7.10 J !	27 J !	n/a	n/a	n/a
Unknown Semivolatile w/ Highest Conc.	130 J !	200 J !	n/a	n/a	n/a
Calculated Total SVOC's	715.6	2,292	1.2	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or reported as TIC.

n/a - not analyzed / not applicable

Table 11

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
4,4,-DDT	<0.02	<0.4	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.4	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.4	<0.02	0.2	n/a
Aldrin	<0.02	<0.4	<0.02	n/a	n/a
alpha BHC	<0.02	<0.4	<0.02	0.01	n/a
beta BHC	<0.02	<0.4	<0.02	0.04	n/a
Chlordane	<0.5	<10	<0.5	0.05	n/a
delta-BHC	<0.02	<0.4	<0.02	0.04	n/a
Dieldrin	<0.02	<0.4	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.4	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.4	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.4	<0.02	n/a	n/a
Endrin	<0.02	<0.4	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.4	<0.02	5	n/a
Endrin ketone	<0.02	<0.4	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.4	<0.02	0.05	n/a
Heptachlor	<0.02	<0.4	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.4	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.4	<0.02	35	n/a
Toxaphene	<0.5	<10	<0.5	0.06	n/a

Notes:

n/a - not analyzed / not applicable

Table 12

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Groundwater Analytical Results - July-August, 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Aluminum	2,940	217,000	59,800	n/a	n/a
Antimony	2.1	1.80 J	3.7	3	n/a
Arsenic	10.1	66.4	26.1	25	n/a
Barium	36.4	2,530	621	1,000	n/a
Beryllium	<0.8	21.5	4.9	n/a	3
Cadmium	<2	4.2	1 J	5	n/a
Calcium	22,400	656,000	64,700	n/a	n/a
Chromium (total)	4.7	347	197	50	n/a
Cobalt	2.40 J	201	80.3	n/a	n/a
Copper	20.5	1,160	222	200	n/a
Cyanide	<10	<10	<10	200	n/a
Iron	3,940	370,000	123,000	300	n/a
Lead	23.4	1,200	157	25	n/a
Magnesium	5,040	212,000	42,600	n/a	35,000
Manganese	128	14,800	3,600	300	n/a
Mercury	<0.2	8.7	0.85	0.7	n/a
Nickel	14.4	704	327	100	n/a
Potassium	15,900	83,900	34,900	n/a	n/a
Selenium	2.20 J	4.40 J	3 J	10	n/a
Silver	<2	2.2	<2	50	n/a
Sodium	29,500	43,600	38,000	20,000	n/a
Thallium	<0.8	3.9	1.1	n/a	0.5
Vanadium	20.7	463	160	n/a	n/a
Zinc	22.7	1,350	1,370	n/a	2,000

DISSOLVED	8/9/2017	8/9/2017	8/9/2017		
Date Collected	8/9/2017	8/9/2017	8/9/2017		
Time Collected	11:20 AM	10:40 AM	10:00 AM		
Aluminum, Dissolved	<40	<40	<40	n/a	n/a
Antimony, Dissolved	1.20 J	<2	4.3	n/a	n/a
Arsenic, Dissolved	11	5.4	1.40 J	n/a	n/a
Barium, Dissolved	14.9	140	48.5	n/a	n/a
Beryllium, Dissolved	<0.8	<0.8	<0.8	n/a	n/a
Cadmium, Dissolved	<2	<2	<2	n/a	n/a
Calcium, Dissolved	21,400	46,800	34,900	n/a	n/a
Chromium (total)	<4	<4	<4	50	n/a
Cobalt, Dissolved	<4	<4	<4	n/a	n/a
Copper, Dissolved	4.5	1.50 J	3.30 J	n/a	n/a
Iron (Dissolved)	<120	44.80 J	<120	300	n/a
Lead, Dissolved	<1.2	<1.2	<1.2	n/a	n/a
Magnesium, Dissolved	3,160	9,380	5,500	n/a	n/a
Manganese (Dissolved)	18.3	575	13.5	300	n/a
Mercury, Dissolved	<0.2	<0.2	<0.2	n/a	n/a
Nickel, Dissolved	<4	<4	<4	n/a	n/a
Potassium, Dissolved	14,100	22,300	17,600	n/a	n/a
Selenium, Dissolved	2.50 J	1.20 J	1.40 J	n/a	n/a
Silver, Dissolved	<2	<2	<2	n/a	n/a
Sodium, Dissolved	19,700	30,700	25,800	n/a	n/a
Thallium, Dissolved	<0.8	<0.8	<0.8	n/a	n/a
Vanadium, Dissolved	14.3	9.2	2.60 J	n/a	n/a
Zinc, Dissolved	<16	<16	11.10 J	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory



Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

**Groundwater Analytical Results - July-August, 2017 (ng/L)**

**TestAmerica, Inc.**

Methods: Modified EPA 537

Location	SB-13_GW	SB-15_GW	SB-18_GW	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth	1-3	4-6	3-5		
Date Collected	7/26/2017	7/26/2017	7/26/2017		
Time Collected	9:02 AM	9:09 AM	9:16 AM		
Perfluorobutanesulfonic acid (PFBS)	9.89	17.6	10	n/a	n/a
Perfluoroheptanoic acid (PFHpA)	<2	<2	<2	n/a	n/a
Perfluorohexanesulfonic acid (PFHxS)	<2	5.67	<2	n/a	n/a
perfluorononanoic acid (PFNA)	2.17	3.07	5.44	n/a	n/a
perfluorooctanesulfonic acid (PFOS)	10.5	27.3	82.7	n/a	n/a
perfluorooctanoic acid (PFOA)	17.3	34.2	35.9	n/a	n/a
<b>Calculated Total PFC's</b>	<b>39.86</b>	<b>87.84</b>	<b>134.04</b>	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Table 14

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results - October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	SB-36	SB-37S	SB-37D	SB-38
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM
Aroclor 1016	<2	<4	<4	<0.4
Aroclor 1221	<2	<4	<4	<0.4
Aroclor 1232	<2	<4	<4	<0.4
Aroclor 1242	<2	<4	<4	<0.4
Aroclor 1248	<2	<4	<4	<0.4
Aroclor 1254	<2	<4	<4	<0.4
Aroclor 1260	8.8	24	16	0.81
Aroclor 1262	<2	<4	<4	<0.4
Aroclor 1268	<2	<4	<4	<0.4
Polybrominated biphenyls (total)	8.8	24	16	0.81

NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
n/a	n/a
5	n/a

Notes:

n/a - not analyzed / not applicable

Empire Electric  
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Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
1,1 Dichloroethane	<20	<25	<25	<1	5	n/a
1,1 Dichloroethene	<20	<25	<25	<1	5	n/a
1,1,1 Trichloroethane	<20	<25	<25	<1	5	n/a
1,1,2 Trichloroethane	<20	<25	<25	<1	1	n/a
1,1,2,2 Tetrachloroethane	<20	<25	<25	<1	5	n/a
1,2 Dibromoethane	<20	<25	<25	<1	0.001	n/a
1,2 Dichlorobenzene	24	430	110	<1	3	n/a
1,2 Dichloroethane	<20	<25	<25	<1	0.6	n/a
1,2 Dichloropropane	<20	<25	<25	<1	1	n/a
1,2,3 Trichlorobenzene	1,400	1,900	2,200	<1	5	n/a
1,2,4 Trichlorobenzene	4,500	7,300	8,100	<1	5	n/a
1,3 Dichlorobenzene	12 J	760	100	2.3	3	n/a
1,4 Dichlorobenzene	56	610	200	1.6	3	n/a
1,4-Dioxane	<1000	<1300	<1300	<50	n/a	n/a
2-Hexanone	<100	<130	<130	<5	n/a	50
4-Methyl-2-Pentanone	<100	<130	<130	<5	n/a	n/a
Acetone	<100	<130	<130	6.1	n/a	50
Benzene	<20	4.40 J	3 J	1.6	1	n/a
Bromochloromethane	<20	<25	<25	<1	5	n/a
Bromodichloromethane	<20	<25	<25	<1	n/a	50
Bromoform	<20	<25	<25	<1	n/a	50
Bromomethane	<20	<25	<25	<1	5	n/a
c 1,3 Dichloropropene	<20	<25	<25	<1	n/a	n/a
Carbon Disulfide	<20	<25	<25	<1	n/a	60
Carbon Tetrachloride	<20	<25	<25	<1	5	n/a
Chlorobenzene	<20	220	31	11	5	n/a
Chloroethane	<20	<25	<25	<1	5	n/a
Chloroform	<20	<25	<25	<1	7	n/a
Chloromethane	<20	<25	<25	<1	5	n/a
cis-1,2-Dichloroethene	<20	<25	<25	<1	5	n/a
Cyclohexane	<20	<25	<25	<1	n/a	n/a

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ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Cyclohexane, methyl-	<20	<25	<25	<1	n/a	n/a
Dibromochloromethane	<20	<25	<25	<1	n/a	50
Dibromochloropropane	<20	<25	<25	<1	0.04	n/a
Dichlorodifluoromethane	<20	<25	<25	<1	5	n/a
Ethylbenzene	<20	<25	<25	<1	5	n/a
Freon 113	<20	<25	<25	<1	5	n/a
Isopropylbenzene	<20	<25	<25	<1	5	n/a
m + p Xylene	<20	<25	<25	<1	5*	n/a
Methyl acetate	<100	<130	<130	<5	n/a	n/a
Methyl Ethyl Ketone	<100	<130	<130	<5	n/a	50
Methylene Chloride	<20	<25	<25	<1	5	n/a
o-Xylene	<20	<25	<25	<1	5	n/a
Styrene	<20	<25	<25	<1	5	n/a
t 1,3 Dichloropropene	<20	<25	<25	<1	n/a	n/a
t butylmethylether	<20	<25	<25	<1	n/a	10
Tetrachloroethene	<20	<25	11 J	0.62 J	5	n/a
Toluene	<20	<25	<25	<1	5	n/a
trans-1,2-Dichloroethene	<20	<25	<25	<1	5	n/a
Trichloroethylene	<20	<25	<25	<1	5	n/a
Trichlorofluoromethane	<20	<25	<25	<1	5	n/a
Vinyl Chloride	<20	<25	<25	<1	2	n/a
Calculated						
Total VOCs	5,992	11,224.40	10,755	23.22	n/a	n/a
Total BTEX	<100	4	3	2	n/a	n/a

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

\* - Standard applies to each isomer separately

Empire Electric  
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ENVIRONMENTAL  
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REMIEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
1,1-Biphenyl	<10	1.10 J	0.80 J	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	21	42	34	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	<10	<10	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	0.68 J	5.50 J	2.30 J	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	0.72 J	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<21	<20	<21	<20	n/a	10
2,4-Dinitrotoluene	<2.1	<2	<2.1	<2	5	n/a
2,6-Dinitrotoluene	<2.1	<2	<2.1	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<21	<20	<21	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	<10	5	n/a
4-Nitrophenol	<21	<20	<21	<20	n/a	n/a
Acenaphthene	<10	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	<10	n/a	50
Atrazine	<2.1	<2	<2.1	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	<10	n/a	n/a
Benzo(a)anthracene	<1	<1	<1	<1	n/a	0.002
Benzo(a)pyrene	<1	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	<10	5	n/a

Empire Electric  
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ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
bis(2-Ethylhexyl)phthalate	1.60 J	<2	1.50 J	1.20 J	5	n/a
Butylbenzylphthalate	<10	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	<10	n/a	n/a
Chrysene	<2.1	<2	<2.1	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	<10	n/a	50
Di-n-butylphthalate	0.91 J	<10	1 J	0.91 J	50	n/a
Di-n-octylphthalate	<10	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	<1	n/a	n/a
N-Nitrosodiphenylamine	<10	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	<10	n/a	n/a
p-cresol	<10	<10	<10	<10	n/a	n/a
Pentachlorophenol	<21	<20	<21	<20	1.5	n/a
Phenanthrene	<10	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	450 JN !	72 JN !	n/a	3	n/a
1,2,3 Trichlorobenzene	n/a	860 JN !	780 JN !	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	92 JN !	180 JN !	120 JN !	n/a	n/a	n/a
1,2,4 Trichlorobenzene	480 JN !	n/a	n/a	n/a	5	n/a
1,3 Dichlorobenzene	n/a	280 JN !	62 JN !	n/a	3	n/a
1,3,5-Trichlorobenzene	1,300 JN !	2,300 JN !	2,300 JN !	n/a	n/a	n/a
1,4 Dichlorobenzene	9.90 JN !	490 JN !	180 JN !	n/a	3	n/a
2,5-Dichlorothiophene	n/a	20 JN !	n/a	n/a	n/a	n/a
3-Carene	n/a	n/a	n/a	8.70 JN !	n/a	n/a

Empire Electric  
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ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Benzene, 1-Methyl-2-(1Methylethyl)	n/a	n/a	n/a	12 JN !	5	n/a
Chlorobenzene	n/a	130 JN !	14 JN !	n/a	5	n/a
Hexadecanoic Acid	n/a	77 JN !	12 JN !	n/a	n/a	n/a
Octadecanoic Acid	n/a	93 JN !	9.90 JN !	n/a	n/a	n/a
Pentachlorobenzene	n/a	14 JN !	9.90 JN !	n/a	5	n/a
Tert-Amyl-Methyl-Ether	n/a	44 JN !	n/a	n/a	n/a	n/a
Unknown SVOC	n/a	23 J !	16 J !	n/a	n/a	n/a
Unknown SVOC	n/a	23 J !	14 J !	n/a	n/a	n/a
Unknown SVOC	n/a	15 J !	12 J !	n/a	n/a	n/a
Unknown SVOC	n/a	11 J !	10 J !	n/a	n/a	n/a
Unknown SVOC	n/a	11 J !	9.70 J !	n/a	n/a	n/a
Unknown SVOC	n/a	9.90 J !	9.50 J !	n/a	n/a	n/a
Unknown SVOC	n/a	n/a	8.80 J !	n/a	n/a	n/a
Unknown SVOC	n/a	n/a	8 J !	n/a	n/a	n/a
Unknown SVOC	n/a	25 J !	17 J !	n/a	n/a	n/a
Calculated Total SVOCs	1,906.09	5,115.22	3,724.40	22.81	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimate dvalue below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Table 17

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW8081B

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
4,4,-DDT	<0.02	<0.02	<0.02	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.02	<0.02	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.02	<0.02	<0.02	0.2	n/a
Aldrin	<0.02	<0.02	<0.02	<0.02	n/a	n/a
alpha BHC	<0.02	<0.02	<0.02	<0.02	0.01	n/a
beta BHC	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Chlordane	<0.5	<0.5	<0.5	<0.5	0.05	n/a
delta-BHC	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Dieldrin	<0.02	<0.02	<0.02	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.02	<0.02	<0.02	5	n/a
Endrin ketone	<0.02	<0.02	<0.02	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.02	<0.02	<0.02	0.05	n/a
Heptachlor	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.02	<0.02	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.02	<0.02	<0.02	35	n/a
Toxaphene	<0.5	<0.5	<0.5	<0.5	0.06	n/a

Notes:

n/a - not analyzed / not applicable



Table 18

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Aluminum	59.2	18.30 J	78.1	246	n/a	n/a
Aluminum, Dissolved	<40	<40	<40	<40	n/a	n/a
Antimony	1.50 J	<2	<2	1.90 J	3	n/a
Antimony, Dissolved	1.10 J	<2	<2	1.50 J	n/a	n/a
Arsenic	1.50 J	9.7	0.68 J	1.60 J	25	n/a
Arsenic, Dissolved	2	5.7	0.69 J	1.60 J	n/a	n/a
Barium	55.3	217	58.1	55.9	1,000	n/a
Barium, Dissolved	55.4	190	61.1	52	n/a	n/a
Beryllium	<0.8	<0.8	<0.8	<0.8	n/a	3
Beryllium, Dissolved	<0.8	<0.8	<0.8	<0.8	n/a	n/a
Cadmium	<2	<2	<2	<2	5	n/a
Cadmium, Dissolved	<2	<2	<2	<2	n/a	n/a
Calcium	46,400	65,000	70,400	57,000	n/a	n/a
Calcium, Dissolved	43,400	60,700	67,700	53,100	n/a	n/a
Chromium (total)	<4	<4	<4	1.60 J	50	n/a
Cobalt	<4	<4	<4	<4	n/a	n/a
Cobalt, Dissolved	<4	<4	<4	<4	n/a	n/a
Copper	3.80 J	10.4	2.20 J	1.90 J	200	n/a
Copper, Dissolved	3.90 J	<4	1.50 J	<4	n/a	n/a
Cyanide	6.9 J	3.3 J	<10	2.5 J	200	n/a
Iron	82.70 J	4,440	1,050	386	300	n/a
Iron (Dissolved)	<120	<120	<120	<120	300	n/a
Lead	0.41 J	4.8	<1.2	0.62 J	25	n/a
Lead, Dissolved	<1.2	<1.2	<1.2	<1.2	n/a	n/a
Magnesium	9,130	10,100	13,200	8,530	n/a	35,000
Magnesium, Dissolved	8,160	9,380	12,200	8,410	n/a	n/a
Manganese	292	1,070	2,210	309	300	n/a
Manganese (Dissolved)	267	970	2,100	276	300	n/a
Mercury	<0.2	<0.2	<0.2	<0.2	0.7	n/a
Mercury, Dissolved	<0.2	<0.2	<0.2	<0.2	n/a	n/a
Nickel	3.60 J	<4	4.7	3.30 J	100	n/a

Table 18

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - October 2017(ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	SB-36	SB-37S	SB-37D	SB-38	NYSDEC TOGS111 ClassGA Standard	NYSDEC TOGS111 ClassGA Guidance
Depth (ft BGS)	3-8	6-11	19-24	6.5-11.5		
Date Collected	10/3/2017	10/3/2017	10/3/2017	10/3/2017		
Time Collected	12:00 PM	10:40 AM	11:25 AM	10:00 AM		
Nickel, Dissolved	3.60 J	<4	3.70 J	2.40 J	n/a	n/a
Potassium	22,400	23,400	18,400	13,400	n/a	n/a
Potassium, Dissolved	22,900	22,600	18,200	12,800	n/a	n/a
Selenium	1.90 J	<10	1.30 J	0.92 J	10	n/a
Selenium, Dissolved	2 J	0.74 J	1.60 J	1.30 J	n/a	n/a
Silver	<2	<2	<2	<2	50	n/a
Silver, Dissolved	<2	<2	<2	<2	n/a	n/a
Sodium	36,000	41,800	109,000	56,900	20,000	n/a
Sodium, Dissolved	31,600	40,000	100,000	55,900	n/a	n/a
Thallium	<0.8	<0.8	<0.8	<0.8	n/a	0.5
Thallium, Dissolved	<0.8	<0.8	<0.8	<0.8	n/a	n/a
Vanadium	2.30 J	16.2	<4	3.10 J	n/a	n/a
Vanadium, Dissolved	<4	2 J	<4	2.40 J	n/a	n/a
Zinc	<16	<16	<16	<16	n/a	2,000
Zinc, Dissolved	<16	<16	<16	<16	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results - October 2017  
 EAR Field Screening

Location	Date Collected	Dissolved Oxygen <i>mg/L</i>	Temperature <i>°C</i>	pH -	ORP (Oxidation Reduction Potential) <i>mV</i>	Conductivity <i>us/cm</i>
SB-36	10/3/2017	1.14	15.10	8.12	70.1	562
SB-37S	10/3/2017	0.52	14.36	7.02	-96.6	706
SB-37D	10/3/2017	0.54	12.49	6.35	106.3	1,007
SB-38	10/3/2017	1.78	18.00	8.23	-190.2	800

Table 20

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Concrete Analytical Results - July-October 2017 (ug/Kg)  
TestAmerica, Inc.  
Methods: SW8082A

Location	Depth (inches below grade surface)	Date Collected	Time Collected	Moisture %	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
CB-1_0-3	0-3	7/21/2017	9:10 AM	8.3	<73	<73	<73	<73	<73	<73	170	<73	<73	170
CB-2_0-3	0-3	7/21/2017	9:30 AM	4.2	<70	<70	<70	<70	<70	<70	470	<70	<70	470
CB-3_0-3	0-3	7/21/2017	9:42 AM	12.4	<76	<76	<76	<76	<76	<76	<76	<76	<76	<76
CB-4_0-3	0-3	7/21/2017	10:01 AM	0.7	<67	<67	<67	<67	<67	<67	500	<67	<67	500
CB-5_0-3	0-3	7/21/2017	10:45 AM	12.1	<76	<76	<76	<76	<76	<76	<76	<76	<76	<76
CB-6_0-3	0-3	7/21/2017	10:55 AM	5.8	<71	<71	<71	<71	<71	<71	690	<71	<71	690
CB-7_0-3	0-3	7/21/2017	11:04 AM	5.5	<71	<71	<71	<71	<71	<71	280	<71	<71	280
CB-8_0-3	0-3	7/21/2017	11:13 AM	7.2	<72	<72	<72	<72	<72	<72	150	<72	<72	140
CB-9_0-3	0-3	7/21/2017	12:08 PM	5.1	<71	<71	<71	<71	<71	<71	140	<71	<71	110
CB-10_0-3	0-3	7/21/2017	12:18 PM	11.8	<38000	<38000	<38000	<38000	<38000	<38000	410,000	<38000	<38000	410,000
CB-10_3-6	3-6	7/21/2017	12:22 PM	7.2	<36000	<36000	<36000	<36000	<36000	<36000	190,000	<36000	<36000	190,000
CB-10R (post scarification)	0-3	8/9/2017	9:35 AM	9.8	<3700	<3700	<3700	<3700	<3700	<3700	45,000	<3700	<3700	44,000
CB-11_0-3	0-3	7/21/2017	12:26 PM	0.2	<67	<67	<67	<67	<67	<67	610	<67	<67	610
CB-12_0-3	0-3	7/21/2017	12:35 PM	5.1	<71	<71	<71	<71	<71	<71	160	<71	<71	160
CB-13_0-3	0-3	7/21/2017	1:22 PM	6.4	<71	<71	<71	<71	<71	<71	43 J	<71	<71	43 J
CB-14_0-3	0-3	7/21/2017	1:33 PM	2.8	<69	<69	<69	<69	<69	<69	480	<69	<69	480
CB-15_0-3	0-3	7/21/2017	1:45 PM	4.5	<70	<70	<70	<70	<70	<70	160	<70	<70	160
CB-16_0-3	0-3	7/25/2017	8:30 AM	3.8	<70	<70	<70	<70	<70	<70	110	<70	<70	110
CB-16_3-6	3-6	7/25/2017	8:35 AM	3.6	<69	<69	<69	<69	<69	<69	140	<69	<69	130
CB-17_0-3	0-3	7/25/2017	8:39 AM	6	<71	<71	<71	<71	<71	<71	94	<71	<71	94
CB-17_3-6	3-6	7/25/2017	8:45 AM	4.7	<70	<70	<70	<70	<70	<70	390	<70	<70	390
CB-18_0-3	0-3	7/25/2017	8:51 AM	5	<71	<71	<71	<71	<71	<71	<71	<71	<71	<71
CB-18_3-6	3-6	7/25/2017	8:58 AM	5.4	<71	<71	<71	<71	<71	<71	140	<71	<71	140
CB-19_0-3	0-3	7/25/2017	9:04 AM	1	<68	<68	<68	<68	<68	<68	200	<68	<68	200
CB-19_3-6	3-6	7/25/2017	9:08 AM	<0.1	<67	<67	<67	<67	<67	<67	<67	<67	<67	<67
CB-20_0-3	0-3	7/25/2017	9:11 AM	2.1	<34000	<34000	<34000	<34000	<34000	<34000	550,000	<34000	<34000	550,000
CB-20_3-6	3-6	7/25/2017	9:15 AM	0.6	<13000	<13000	<13000	<13000	<13000	<13000	200,000	<13000	<13000	200,000
CB-20PS_0-3	0-3	9/21/2017	9:50 AM	5.1	<70	<70	<70	<70	<70	<70	280	<70	<70	280
CB-21_0-3	0-3	7/25/2017	9:22 AM	6	<71	<71	<71	<71	<71	<71	180	<71	<71	150
CB-21_3-6	3-6	7/25/2017	9:30 AM	5.5	<71	<71	<71	<71	<71	<71	130	<71	<71	130
CB-22_0-3	0-3	7/25/2017	9:38 AM	4.7	<70000	<70000	<70000	<70000	<70000	<70000	1,100,000	<70000	<70000	1,100,000
CB-22_3-6	3-6	7/25/2017	9:44 AM	4.4	<70000	<70000	<70000	<70000	<70000	<70000	1,000,000	<70000	<70000	1,000,000
CB-22PS_0-3	0-3	9/21/2017	9:30 AM	3.5	<690	<690	<690	<690	<690	<690	7,800	<690	<690	7,800
CB-23_0-3	0-3	7/25/2017	10:45 AM	4.5	<35000	<35000	<35000	<35000	<35000	<35000	310,000	<35000	<35000	310,000
CB-23_3-6	3-6	7/25/2017	10:50 AM	5	<35000	<35000	<35000	<35000	<35000	<35000	620,000	<35000	<35000	620,000
CB-23PS_0-3	0-3	9/21/2017	10:30 AM	6.9	<1400	<1400	<1400	<1400	<1400	<1400	16,000	<1400	<1400	16,000
CB-24_0-3	0-3	7/25/2017	10:57 AM	7.3	<3600	<3600	<3600	<3600	<3600	<3600	67,000	<3600	<3600	67,000
CB-24_3-6	3-6	7/25/2017	11:02 AM	4.6	<35000	<35000	<35000	<35000	<35000	<35000	730,000	<35000	<35000	730,000
CB-24PS_0-3	0-3	9/21/2017	9:10 AM	4.2	<350	<350	<350	<350	<350	<350	2,900	<350	<350	2,900
CB-25_0-3	0-3	7/25/2017	11:09 AM	2	<68	<68	<68	<68	<68	<68	250	<68	<68	250
CB-25_3-6	3-6	7/25/2017	11:14 AM	0.9	<67	<67	<67	<67	<67	<67	340	<67	<67	340
CB-26_0-3	0-3	7/25/2017	11:20 AM	2.4	<69	<69	<69	<69	<69	<69	140	<69	<69	120
CB-26_3-6	3-6	7/25/2017	11:25 AM	0.8	<67	<67	<67	<67	<67	<67	250	<67	<67	250
CB-27_0-3	0-3	7/25/2017	11:31 AM	5.9	<71	<71	<71	<71	<71	<71	230	<71	<71	230
CB-27_3-6	3-6	7/25/2017	11:36 AM	3.1	<69	<69	<69	<69	<69	<69	390	<69	<69	390

Table 20

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Concrete Analytical Results - July-October 2017 (ug/Kg)  
TestAmerica, Inc.  
Methods: SW8082A

Location	Depth (inches below grade surface)	Date Collected	Time Collected	Moisture %	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268	Polybrominated biphenyls (total)
CB-28_0-3	0-3	7/25/2017	11:42 AM	12.4	<76	<76	<76	<76	<76	<76	71 J	<76	<76	71 J
CB-28_3-6	3-6	7/25/2017	11:49 AM	8.2	<73	<73	<73	<73	<73	<73	110	<73	<73	110
CB-29_0-3	0-3	7/25/2017	12:45 PM	3.8	<7000	<7000	<7000	<7000	<7000	<7000	110,000	<7000	<7000	110,000
CB-29_3-6	3-6	7/25/2017	12:50 PM	5.9	<36000	<36000	<36000	<36000	<36000	<36000	590,000	<36000	<36000	590,000
CB-29PS_0-3	0-3	9/21/2017	8:40 AM	3.5	<140	<140	<140	<140	<140	<140	1,600	<140	<140	1,600
CB-30_0-3	0-3	7/25/2017	12:57 PM	4.6	<14000	<14000	<14000	<14000	<14000	<14000	130,000	<14000	<14000	130,000
CB-30_3-6	3-6	7/25/2017	1:02 PM	3.4	<1700	<1700	<1700	<1700	<1700	<1700	21,000	<1700	<1700	21,000
CB-30PS_0-3	0-3	9/21/2017	8:25 AM	3.7	<14000	<14000	<14000	<14000	<14000	<14000	160,000	<14000	<14000	160,000
CB-30PS2	0-3	10/3/2017	9:30 AM	3.1	<69	<69	<69	<69	<69	<69	180	<69	<69	180
NYCRR 375-6: Commercial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1,000
NYCRR 375-6: Industrial					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25,000
NYCRR 375-6: Unrestricted					n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	100

## Notes:

J - Indicates an estimate dvalue below laboratory reporting limits  
n/a - not analyzed / not applicable

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Concrete Analytical Results - July-October 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW260C

Location	CB-22_0-3	CB-9_3-6	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (inches below grade)	0-3	3-6			
Date Collected	7/25/2017	7/25/2017			
Time Collected	9:38 AM	12:15 PM			
Moisture, Percent	4.1	5.5			
1,1 Dichloroethane	<2000	<0.86	240,000	480,000	270
1,1 Dichloroethene	<2000	<0.86	500,000	1,000,000	330
1,1,1 Trichloroethane	<2000	<0.86	500,000	1,000,000	680
1,1,2 Trichloroethane	<2000	<0.86	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<2000	<0.86	n/a	n/a	n/a
1,2 Dibromoethane	<2000	<0.86	n/a	n/a	n/a
1,2 Dichlorobenzene	1400 J	<0.86	500,000	1,000,000	1,100
1,2 Dichloroethane	<2000	<0.86	30,000	60,000	20
1,2 Dichloropropane	<2000	<0.86	n/a	n/a	n/a
1,2,3 Trichlorobenzene	220,000	<0.86	n/a	n/a	n/a
1,2,4 Trichlorobenzene	610,000	<0.86	n/a	n/a	n/a
1,3 Dichlorobenzene	<2000	<0.86	280,000	560,000	2,400
1,4 Dichlorobenzene	1600 J	<0.86	130,000	250,000	1,800
1,4-Dioxane	<99000	<17	130,000	250,000	100
2-Hexanone	<9900	1 J	n/a	n/a	n/a
4-Methyl-2-Pentanone	<9900	<4.3	n/a	n/a	n/a
Acetone	<9900	44	500,000	1,000,000	50
Benzene	<2000	<0.86	44,000	89,000	60
Bromochloromethane	<2000	<0.86	n/a	n/a	n/a
Bromodichloromethane	<2000	<0.86	n/a	n/a	n/a
Bromoform	<2000	<0.86	n/a	n/a	n/a
Bromomethane	<2000	<0.86	n/a	n/a	n/a
c 1,3 Dichloropropene	<2000	<0.86	n/a	n/a	n/a
Carbon Disulfide	<2000	<0.86	n/a	n/a	n/a
Carbon Tetrachloride	<2000	<0.86	22,000	44,000	760
Chlorobenzene	<2000	<0.86	500,000	1,000,000	1,100
Chloroethane	<2000	<0.86	n/a	n/a	n/a
Chloroform	<2000	<0.86	350,000	700,000	370
Chloromethane	<2000	<0.86	n/a	n/a	n/a
cis-1,2-Dichloroethene	<2000	<0.86	500,000	1,000,000	250

Empire Electric  
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Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Concrete Analytical Results - July-October 2017 (ug/Kg)

TestAmerica, Inc.

Methods: SW260C

Location	CB-22_0-3	CB-9_3-6	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (inches below grade)	0-3	3-6			
Date Collected	7/25/2017	7/25/2017			
Time Collected	9:38 AM	12:15 PM			
Moisture, Percent	4.1	5.5			
Cyclohexane	<2000	<0.86	n/a	n/a	n/a
Cyclohexane, methyl-	<2000	<0.86	n/a	n/a	n/a
Dibromochloromethane	<2000	<0.86	n/a	n/a	n/a
Dibromochloropropane	<2000	<0.86	n/a	n/a	n/a
Dichlorodifluoromethane	<2000	<0.86	n/a	n/a	n/a
Ethylbenzene	<2000	<0.86	390,000	780,000	1,000
Freon 113	<2000	<0.86	n/a	n/a	n/a
Isopropylbenzene	<2000	<0.86	n/a	n/a	n/a
m + p Xylene	<2000	<0.86	n/a	n/a	n/a
Methyl acetate	<9900	<4.3	n/a	n/a	n/a
Methyl Ethyl Ketone	<9900	9	500,000	1,000,000	120
Methylene Chloride	<2000	0.30 J	500,000	1,000,000	50
o-Xylene	<2000	<0.86	n/a	n/a	n/a
Styrene	<2000	<0.86	n/a	n/a	n/a
t 1,3 Dichloropropene	<2000	<0.86	n/a	n/a	n/a
t butylmethylether	<2000	<0.86	500,000	1,000,000	930
Tetrachloroethene	<2000	<0.86	150,000	300,000	1,300
Toluene	<2000	<0.86	500,000	1,000,000	700
trans-1,2-Dichloroethene	<2000	<0.86	500,000	1,000,000	190
Trichloroethylene	<2000	<0.86	200,000	400,000	470
Trichlorofluoromethane	<2000	<0.86	n/a	n/a	n/a
Vinyl Chloride	<2000	<0.86	13,000	27,000	20
Calculated					
Total BTEX	<10000	<4.3	n/a	n/a	n/a
Total VOCs	833,000	53.3	n/a	n/a	n/a
Total Xylenes	<4,000	<1.72	500,000	1,000,000	260

Notes:

J - Indicates an estimated value below laboratory reporting limits

n/a - not analyzed / not applicable

Table 22

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Aroclor 1016	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1221	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1232	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1242	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1248	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1254	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1260	<0.4	<0.4	<0.4	6.9	<0.4	<0.4	5	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1262	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Aroclor 1268	<0.4	<0.4	<0.4	<4	<0.4	<0.4	<4	<0.4	<0.4	<0.4	n/a	n/a
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	6.9	<0.4	<0.4	5	<0.4	<0.4	<0.4	5	n/a

Notes:

n/a - not analyzed / not applicable



Table 23

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
1,1 Dichloroethane	0.36 J	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1 Dichloroethene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1,1 Trichloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,1,2 Trichloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
1,1,2,2 Tetrachloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
1,2 Dibromoethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.001	n/a
1,2 Dichlorobenzene	<1	<1	<1	38	<1	<1	23	<1	<1	0.31 J	3	n/a
1,2 Dichloropropane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.6	n/a
1,2 Dichloropropane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
1,2,3 Trichlorobenzene	<1	<1	<1	1,400	<1	<1	370	<1	<1	<1	5	n/a
1,2,4 Trichlorobenzene	<1	<1	<1	5,500	<1	<1	2,000	<1	<1	0.30 J	5	n/a
1,3 Dichlorobenzene	<1	<1	<1	89	<1	<1	330	<1	<1	1.1	3	n/a
1,4 Dichlorobenzene	<1	<1	<1	140	<1	<1	95	<1	<1	0.71 J	3	n/a
1,4-Dioxane	0.57	<0.4	<50	<1300	0.72	<0.4	<500	<50	<50	<50	n/a	n/a
2-Hexanone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
4-Methyl-2-Pentanone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	n/a
Acetone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
Benzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	1	n/a
Bromochloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Bromodichloromethane	<1	0.19 J	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Bromoform	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Bromomethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
c 1,3 Dichloropropene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
Carbon Disulfide	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	60
Carbon Tetrachloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Chlorobenzene	<1	<1	<1	8.40 J	<1	<1	45	<1	<1	0.85 J	5	n/a
Chloroethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Chloroform	1.6	3.6	<1	<25	3	0.28 J	<10	1.2	1.7	<1	7	n/a
Chloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
cis-1,2-Dichloroethene	0.79 J	<1	<1	<25	<1	<1	<10	<1	0.52 J	<1	5	n/a
Cyclohexane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a

Table 23

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8260C, SW8260C-SIM

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Cyclohexane, methyl-	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
Dibromochloromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	50
Dibromochloropropane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	0.04	n/a
Dichlorodifluoromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Ethylbenzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Freon 113	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Isopropylbenzene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
m + p Xylene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5*	n/a
Methyl acetate	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	n/a
Methyl Ethyl Ketone	<5	<5	<5	<130	<5	<5	<50	<5	<5	<5	n/a	50
Methylene Chloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
o-Xylene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Styrene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
t,1,3 Dichloropropene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	n/a
t butylmethylether	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	n/a	10
Tetrachloroethene	3	6.9	1.2	<25	1.7	5.6	<10	2.6	9.8	0.27 J	5	n/a
Toluene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
trans-1,2-Dichloroethene	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Trichloroethylene	5.7	0.71 J	0.49 J	<25	0.23 J	0.36 J	<10	2.4	3.4	0.44 J	5	n/a
Trichlorofluoromethane	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	5	n/a
Vinyl Chloride	<1	<1	<1	<25	<1	<1	<10	<1	<1	<1	2	n/a
Calculated												
Total VOCs	12.02	11.4	1.69	7,175.40	5.65	6.24	2,863	6.2	15.42	3.98	n/a	n/a
Total BTEX	<5	<5	<5	<125	<5	<5	<50	<5	<5	<5	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

\* - standard applies to each isomer separately

Table 24

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
1,1-Biphenyl	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
1,2,4,5-Tetrachlorobenzene	<10	<10	<10	24	<10	<10	10	<10	<10	<10	n/a	n/a
2,3,4,6-Tetrachlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4,5-Trichlorophenol	<10	<10	<10	1.80 J	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4,6-Trichlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2,4-Dichlorophenol	<10	<10	<10	<10	<10	<10	2.50 J	<10	<10	<10	5	n/a
2,4-Dimethylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
2,4-Dinitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	10
2,4-Dinitrotoluene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	5	n/a
2,6-Dinitrotoluene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	5	n/a
2-Chloronaphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	10
2-Chlorophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2-Methyl-4,6-dinitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	n/a
2-Methylnaphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
2-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
2-Nitrophenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
3,3-Dichlorobenzidine	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
3-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Bromophenyl-phenylether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Chloro-3-methylphenol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Chloroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Chlorophenyl-phenylether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
4-Nitroaniline	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
4-Nitrophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	n/a	n/a
Acenaphthene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	20
Acenaphthylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Acetophenone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Anthracene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Atrazine	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	7.5	n/a
Benzaldehyde	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a

Table 24

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Benzo(a)anthracene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Benzo(a)pyrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a
Benzo(b)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Benzo(g,h,i)perylene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Benzo(k)fluoranthene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
bis(2-Chloroethoxy)methane	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
bis(2-Chloroethyl)ether	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	n/a
bis(2-Chloroisopropyl)ether	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
bis(2-Ethylhexyl)phthalate	<2	<2.1	<2	1.30 J	<2.1	<2	1.20 J	<2	1.40 J	1.20 J	5	n/a
Butylbenzylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Caprolactam	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Carbazole	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Chrysene	<2	<2.1	<2	<2.1	<2.1	<2	<2	<2	<2.1	<2	n/a	0.002
Dibenzo(a,h)anthracene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a
Dibenzofuran	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Diethylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Dimethylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Di-n-butylphthalate	<10	<10	1.60 J	<10	<10	<10	0.90 J	<10	<10	<10	50	n/a
Di-n-octylphthalate	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Fluoranthene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Fluorene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Hexachlorobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.04	n/a
Hexachlorobutadiene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.5	n/a
Hexachlorocyclopentadiene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	5	n/a
Hexachloroethane	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	5	n/a
Indeno(1,2,3-cd)pyrene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	0.002
Isophorone	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Naphthalene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	10
Nitrobenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	0.4	n/a
N-Nitrosodi-N-Propylamine	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	n/a	n/a

Table 24

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMIEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
N-Nitrosodiphenylamine	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
o-cresol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
p-cresol	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	n/a
Pentachlorophenol	<20	<21	<20	<21	<21	<20	<20	<20	<21	<20	1.5	n/a
Phenanthrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
Phenol (total)	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1	n/a
Pyrene	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	n/a	50
1,2 Dichlorobenzene	n/a	n/a	n/a	30 JN !	n/a	n/a	21 !	n/a	n/a	n/a	3	n/a
1,2,3 Trichlorobenzene	n/a	n/a	n/a	n/a	n/a	n/a	160 JN !	n/a	n/a	n/a	5	n/a
1,2,3,4- Tetrachlorobenzene	n/a	n/a	n/a	62 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	n/a	n/a	n/a	n/a	n/a	n/a	11 JN !	n/a	n/a	n/a	n/a	n/a
1,2,4 Trichlorobenzene	n/a	n/a	n/a	600 JN !	n/a	n/a	1,000 !	n/a	n/a	n/a	5	n/a
1,3 Dichlorobenzene	n/a	n/a	n/a	170 JN !	n/a	n/a	280 !	n/a	n/a	n/a	3	n/a
1,3,5-Trichlorobenzene	n/a	n/a	n/a	1,800 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
1,4 Dichlorobenzene	n/a	n/a	n/a	74 JN !	n/a	n/a	82 !	n/a	n/a	n/a	3	n/a
2,3,5-Tribromophenol	n/a	n/a	n/a	n/a	44 JN !	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Bisphenol A	n/a	n/a	n/a	n/a	n/a	n/a	1.40 J !	n/a	n/a	n/a	n/a	n/a
Unknown SVOC w/ highest conc.	n/a	69 J !	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Calculated Total SVOCs	<562	69	1.6	2,763.10	44	<562	1,570	<562	1.4	1.2	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Table 25

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)  
TestAmerica, Inc.  
Methods: SW8081B

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
4,4,-DDT	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	n/a
4,4-DDD	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.3	n/a
4,4-DDE	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.2	n/a
Aldrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
alpha BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.01	n/a
beta BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Chlordane	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.05	n/a
delta-BHC	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Dieldrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.004	n/a
Endosulfan I	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan II	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endosulfan Sulfate	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	n/a	n/a
Endrin Aldehyde	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	5	n/a
Endrin ketone	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	5	n/a
Gamma-BHC(Lindane)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.05	n/a
Heptachlor	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.04	n/a
Heptachlor Epoxide	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.03	n/a
Methoxychlor	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	35	n/a
Toxaphene	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.06	n/a

Notes:  
n/a - not analyzed / not applicable

Table 26

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Aluminum	<40	73.4	86.6	130	37.40 J	86.7	113	48	55.7	33.80 J	n/a	n/a
Aluminum, Dissolved	n/a	n/a	n/a	<40	n/a	n/a	<40	n/a	<40	n/a	n/a	n/a
Antimony	<2	1 J	<2	0.64 J	<2	<2	0.67 J	<2	<2	0.95 J	3	n/a
Antimony, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Arsenic	<2	<2	<2	<2	<2	<2	5.4	<2	<2	<2	25	n/a
Arsenic, Dissolved	n/a	n/a	n/a	1.10 J	n/a	n/a	2.2	n/a	<2	n/a	n/a	n/a
Barium	99.8	128	58.3	89	158	290	384	185	90.8	123	1,000	n/a
Barium, Dissolved	n/a	n/a	n/a	91.5	n/a	n/a	360	n/a	84.2	n/a	n/a	n/a
Beryllium	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	n/a	3
Beryllium, Dissolved	n/a	n/a	n/a	<0.8	n/a	n/a	<0.8	n/a	<0.8	n/a	n/a	n/a
Cadmium	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	5	n/a
Cadmium, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Calcium	60,200	59,100	120,000	65,000	75,000	104,000	39,600	101,000	45,200	118,000	n/a	n/a
Calcium, Dissolved	n/a	n/a	n/a	64,700	n/a	n/a	38,700	n/a	43,800	n/a	n/a	n/a
Chromium (total)	<4	9.7	<4	<4	73.5	2 J	<4	12.3	5.5	3.40 J	50	n/a
Chromium, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	5.2	n/a	n/a	n/a
Cobalt	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	n/a	n/a
Cobalt, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Copper	<4	2 J	5.4	<4	3.40 J	<4	4.9	<4	<4	<4	200	n/a
Copper, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Cyanide	<10	11	2.4 J	2 J	<10	2.1 J	<10	2.4 J	<10	<10	200	n/a
Iron	<120	135	478	188	122	128	4,850	75.60 J	59.70 J	57.10 J	300	n/a
Iron, Dissolved	n/a	n/a	n/a	<120	n/a	n/a	<120	n/a	<120	n/a	300	n/a
Lead	<1.2	<1.2	4.6	<1.2	<1.2	<1.2	2.7	<1.2	0.45 J	<1.2	25	n/a
Lead, Dissolved	n/a	n/a	n/a	<1.2	n/a	n/a	<1.2	n/a	<1.2	n/a	n/a	n/a
Magnesium	20,700	7,340	30,900	10,500	21,500	17,800	11,500	37,300	12,400	22,900	n/a	35,000
Magnesium, Dissolved	n/a	n/a	n/a	11,200	n/a	n/a	11,900	n/a	12,200	n/a	n/a	n/a
Manganese	63.7	13.6	360	2,480	6.20 J	5.20 J	1,080	4.60 J	184	4.30 J	300	n/a

Table 26

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ug/L)

TestAmerica, Inc.

Methods: SW6020A, SW7470A, SW9012

Location	MW-01	MW-02	MW-03	MW-05R	MW-08	MW-09	MW-10	MW-12	MW-13	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	10/2/2017	7/27/2017	7/27/2017	10/2/2017	7/24/2017	10/2/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:50 AM	10:45 AM	12:00 PM	9:45 AM	9:35 AM	12:12 PM	1:08 PM		
Manganese, Dissolved	n/a	n/a	n/a	2,390	n/a	n/a	1,000	n/a	74.7	n/a	300	n/a
Mercury	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.7	n/a
Mercury, Dissolved	n/a	n/a	n/a	<0.2	n/a	n/a	<0.2	n/a	<0.2	n/a	n/a	n/a
Nickel	<4	<4	1.60 J	2.50 J	5.6	4.2	2.90 J	3.20 J	<4	<4	100	n/a
Nickel, Dissolved	n/a	n/a	n/a	2.40 J	n/a	n/a	2.30 J	n/a	<4	n/a	n/a	n/a
Potassium	4,070	8,020	27,500	12,400	6,380	9,050	11,600	5,690	4,830	24,000	n/a	n/a
Potassium, Dissolved	n/a	n/a	n/a	12,200	n/a	n/a	12,000	n/a	4,800	n/a	n/a	n/a
Selenium	1.40 J	<10	3.70 J	<10	<10	0.90 J	<10	1.60 J	1.20 J	8.50 J	10	n/a
Selenium, Dissolved	n/a	n/a	n/a	<10	n/a	n/a	<10	n/a	1.40 J	n/a	n/a	n/a
Silver	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	50	n/a
Silver, Dissolved	n/a	n/a	n/a	<2	n/a	n/a	<2	n/a	<2	n/a	n/a	n/a
Sodium	156,000	1,060,000	101,000	202,000	93,900	541,000	48,000	228,000	163,000	106,000	20,000	n/a
Sodium, Dissolved	n/a	n/a	n/a	223,000	n/a	n/a	56,500	n/a	163,000	n/a	n/a	n/a
Thallium	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	n/a	0.5
Thallium, Dissolved	n/a	n/a	n/a	<0.8	n/a	n/a	<0.8	n/a	<0.8	n/a	n/a	n/a
Vanadium	<4	<4	<4	<4	<4	<4	<4	<4	<4	<4	n/a	n/a
Vanadium, Dissolved	n/a	n/a	n/a	<4	n/a	n/a	<4	n/a	<4	n/a	n/a	n/a
Zinc	<16	<16	30.7	<16	<16	<16	12.20 J	<16	<16	<16	n/a	2,000
Zinc, Dissolved	n/a	n/a	n/a	<16	n/a	n/a	<16	n/a	<16	n/a	n/a	n/a

Notes:

J - Indicates an estimate dvalue below laboratory reporting limits

n/a - not analyzed / not applicable

Samples for analysis of dissolved compounds were filtered by the laboratory



Table 27

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017 (ng/L)

TestAmerica, Inc.

Methods: Modified EPA 537

Location	MW-01	MW-02	MW-03	MW-08	MW-09	MW-12	MW-14	TOGS111 ClassGA Standard	TOGS111 ClassGA Guidance
Date Collected	7/27/2017	7/27/2017	7/24/2017	7/27/2017	7/27/2017	7/24/2017	7/24/2017		
Time Collected	9:10 AM	8:08 AM	12:05 PM	10:45 AM	12:00 PM	9:35 AM	1:08 PM		
Perfluorobutanesulfonic acid (PFBS)	<2	<2	4.85	3.75	<2	2.24	7.04	n/a	n/a
Perfluoroheptanoic acid (PFHpA)	15.8	9.26	2.88	21.3	34.3	12.2	20.1	n/a	n/a
Perfluorohexanesulfonic acid (PFHxS)	7.27	3.11	3.61	5.41	3.64	3.49	3.1	n/a	n/a
perfluorononanoic acid (PFNA)	<2	2.81	3.9	0.93 J	2.81	<2	5.93	n/a	n/a
perfluorooctanesulfonic acid (PFOS)	3.64	61.1	42	6.86	22.3	2.97	37.7	n/a	n/a
perfluorooctanoic acid (PFOA)	90.6	116	81.1	146	253	72	224	n/a	n/a
Calculated Total PFC's	117.31	192.28	135.34	184.25	316.05	92.9	297.87	n/a	n/a

Notes:

n/a - not analyzed / not applicable

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Groundwater Analytical Results - Monitoring Wells, July-October 2017  
EAR Field Screening

Location	Date Collected	Dissolved Oxygen <i>mg/L</i>	Temperature <i>°C</i>	pH -	ORP (Oxidation Reduction Potential) <i>mV</i>	Conductivity <i>us/cm</i>
MW-01	7/27/2017	1.48	17.91	4.90	72.8	1,103
MW-02	7/27/2017	1.71	16.68	5.72	47.6	4,293
MW-03	7/24/2017	1.31	15.19	6.72	63.2	1,124
MW-05R	10/2/2017	0.97	18.08	7.21	-114.3	1,331
MW-08	7/27/2017	1.71	16.56	4.59	81.0	947
MW-09	7/27/2017	2.86	18.19	5.03	85.7	2,991
MW-10	10/2/2017	1.69	17.31	6.95	-91.2	514
MW-12	7/24/2017	2.68	17.84	5.96	112.8	1,685
MW-13	10/2/2017	1.56	18.35	6.65	85.8	1,058
MW-14	7/24/2017	1.76	15.25	7.20	31.3	1,001

Table 29

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Site # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Sampling - Monitoring Wells, July-October 2017

**EAR Field Screening**

Depth-to-Water

Location	Date Collected	Time Collected	Depth-to-Water (ft BGS)
MW-01	7/27/2017	9:10 AM	20.97
MW-02	7/27/2017	8:08 AM	20.42
MW-03	7/24/2017	12:05 PM	16.38
MW-05R	10/2/2017	10:50 AM	12.77
MW-08	7/27/2017	10:45 AM	20.29
MW-09	7/27/2017	12:00 PM	18.54
MW-10	10/2/2017	9:45 AM	13.69
MW-12	7/24/2017	9:35 AM	18.98
MW-13	10/2/2017	12:12 PM	17.23
MW-14	7/24/2017	1:08 PM	15.81

All readings collected from top of north side of well casing

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

**MW-05R - Soil Analytical Results (ug/Kg)**

**TestAmerica, Inc.**

Methods: SW8082A

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
	11-13	19-21			
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Aroclor 1016	<77	<86000	n/a	n/a	n/a
Aroclor 1221	<77	<86000	n/a	n/a	n/a
Aroclor 1232	<77	<86000	n/a	n/a	n/a
Aroclor 1242	<77	<86000	n/a	n/a	n/a
Aroclor 1248	<77	<86000	n/a	n/a	n/a
Aroclor 1254	<77	<86000	n/a	n/a	n/a
Aroclor 1260	55 J	1,200,000	n/a	n/a	n/a
Aroclor 1262	<77	<86000	n/a	n/a	n/a
Aroclor 1268	<77	<86000	n/a	n/a	n/a
Polybrominated biphenyls (total)	55 J	1,200,000	1,000	25,000	100

**Notes:**

J - Indicates and estimated value below laboratory reporting limit

n/a - Not applicable or not analyzed

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
	11-13	19-21			
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
1,1 Dichloroethane	<0.83	<2000	240,000	480,000	270
1,1 Dichloroethene	<0.83	<2000	500,000	1,000,000	330
1,1,1 Trichloroethane	<0.83	<2000	500,000	1,000,000	680
1,1,2 Trichloroethane	<0.83	<2000	n/a	n/a	n/a
1,1,2,2 Tetrachloroethane	<0.83	<2000	n/a	n/a	n/a
1,2 Dibromoethane	<0.83	<2000	n/a	n/a	n/a
1,2 Dichlorobenzene	<0.83	910 J	500,000	1,000,000	1,100
1,2 Dichloroethane	<0.83	<2000	30,000	60,000	20
1,2 Dichloropropane	<0.83	<2000	n/a	n/a	n/a
1,2,3 Trichlorobenzene	<0.83	110,000	n/a	n/a	n/a
1,2,4 Trichlorobenzene	<0.83	510,000	n/a	n/a	n/a
1,3 Dichlorobenzene	<0.83	1,700 J	280,000	560,000	2,400
1,4 Dichlorobenzene	<0.83	3,200	130,000	250,000	1,800
1,4-Dioxane	<17	<100000	130,000	250,000	100
2-Hexanone	<4.1	<10000	n/a	n/a	n/a
4-Methyl-2-Pentanone	<4.1	<10000	n/a	n/a	n/a
Acetone	78	<10000	500,000	1,000,000	50
Benzene	<0.83	<2000	44,000	89,000	60
Bromochloromethane	<0.83	<2000	n/a	n/a	n/a
Bromodichloromethane	<0.83	<2000	n/a	n/a	n/a
Bromoform	<0.83	<2000	n/a	n/a	n/a
Bromomethane	<0.83	<2000	n/a	n/a	n/a
c 1,3 Dichloropropene	<0.83	<2000	n/a	n/a	n/a
Carbon Disulfide	<0.83	<2000	n/a	n/a	n/a
Carbon Tetrachloride	<0.83	<2000	22,000	44,000	760
Chlorobenzene	<0.83	<2000	500,000	1,000,000	1,100
Chloroethane	<0.83	<2000	n/a	n/a	n/a
Chloroform	<0.83	<2000	350,000	700,000	370
Chloromethane	<0.83	<2000	n/a	n/a	n/a
cis-1,2-Dichloroethene	<0.83	<2000	500,000	1,000,000	250

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8260C

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Cyclohexane	<0.83	<2000	n/a	n/a	n/a
Cyclohexane, methyl-	<0.83	<2000	n/a	n/a	n/a
Dibromochloromethane	<0.83	<2000	n/a	n/a	n/a
Dibromochloropropane	<0.83	<2000	n/a	n/a	n/a
Dichlorodifluoromethane	<0.83	<2000	n/a	n/a	n/a
Ethylbenzene	<0.83	<2000	390,000	780,000	1,000
Freon 113	<0.83	<2000	n/a	n/a	n/a
Isopropylbenzene	<0.83	<2000	n/a	n/a	n/a
m + p Xylene	0.46 J	<2000	n/a	n/a	n/a
Methyl acetate	<4.1	<10000	n/a	n/a	n/a
Methyl Ethyl Ketone	5.5	<10000	500,000	1,000,000	120
Methylene Chloride	<0.83	<2000	500,000	1,000,000	50
o-Xylene	0.22 J	<2000	n/a	n/a	n/a
Styrene	<0.83	<2000	n/a	n/a	n/a
t 1,3 Dichloropropene	<0.83	<2000	n/a	n/a	n/a
t butylmethylether	0.13 J	<2000	500,000	1,000,000	930
Tetrachloroethene	<0.83	<2000	150,000	300,000	1,300
Toluene	<0.83	<2000	500,000	1,000,000	700
trans-1,2-Dichloroethene	<0.83	<2000	500,000	1,000,000	190
Trichloroethylene	<0.83	<2000	200,000	400,000	470
Trichlorofluoromethane	<0.83	<2000	n/a	n/a	n/a
Vinyl Chloride	<0.83	<2000	13,000	27,000	20
(1S,4S)-(-)-Camphor	8.90 JN !	n/a	n/a	n/a	n/a
1,2,3,4- Tetrachlorobenzene	n/a	19,000 JN !	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	n/a	24,000 JN !	n/a	n/a	n/a
1,3,3-Trimethylbicyclo[2.2.1]heptan-2-one	9.70 JN !	n/a	n/a	n/a	n/a
1-Methyl-4-(1-methylethyl)-cyclohexene	9.50 JN !	n/a	n/a	n/a	n/a
1-Methyl-4-propan-2-ylidenecyclohexene	7.20 JN !	n/a	n/a	n/a	n/a
1R-,alpha.-Pinene	350 JN !	n/a	n/a	n/a	n/a
2 Methylbutane	4.80 JN !	n/a	n/a	n/a	n/a

Empire Electric  
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**MW-05R - Soil Analytical Results (ug/Kg)**

**TestAmerica, Inc.**

Methods: SW8260C

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Benzene, 1-Methyl-2-(1Methylethyl)	84 JN !	n/a	n/a	n/a	n/a
Cyclohexene, 4-methyl-1-(1-methylethyl)	7.20 JN !	n/a	n/a	n/a	n/a
D-Limonene	22 JN !	n/a	n/a	n/a	n/a
<b>Calculated</b>					
Total BTEX	0.68 J	<10000	n/a	n/a	n/a
Total VOCs	587.6	668,810	n/a	n/a	n/a
Total Xylenes	0.68 J	<4000	500,000	1,000,000	260

**Notes:**

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Table 32

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
	11-13	19-21			
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
1,1-Biphenyl	<380	<420	n/a	n/a	n/a
1,2,4,5-Tetrachlorobenzene	<380	6,400	n/a	n/a	n/a
2,3,4,6-Tetrachlorophenol	<380	<420	n/a	n/a	n/a
2,4,5-Trichlorophenol	<380	<420	n/a	n/a	n/a
2,4,6-Trichlorophenol	<150	<170	n/a	n/a	n/a
2,4-Dichlorophenol	<150	<170	n/a	n/a	n/a
2,4-Dimethylphenol	<380	<420	n/a	n/a	n/a
2,4-Dinitrophenol	<300	<340	n/a	n/a	n/a
2,4-Dinitrotoluene	<77	<86	n/a	n/a	n/a
2,6-Dinitrotoluene	<77	<86	n/a	n/a	n/a
2-Chloronaphthalene	<380	<420	n/a	n/a	n/a
2-Chlorophenol	<380	<420	n/a	n/a	n/a
2-Methyl-4,6-dinitrophenol	<300	<340	n/a	n/a	n/a
2-Methylnaphthalene	<380	<420	n/a	n/a	n/a
2-Nitroaniline	<380	<420	n/a	n/a	n/a
2-Nitrophenol	<380	<420	n/a	n/a	n/a
3,3-Dichlorobenzidine	<150	<170	n/a	n/a	n/a
3-Nitroaniline	<380	<420	n/a	n/a	n/a
4-Bromophenyl-phenylether	<380	<420	n/a	n/a	n/a
4-Chloro-3-methylphenol	<380	<420	n/a	n/a	n/a
4-Chloroaniline	<380	<420	n/a	n/a	n/a
4-Chlorophenyl-phenylether	<380	<420	n/a	n/a	n/a
4-Nitroaniline	<380	<420	n/a	n/a	n/a
4-Nitrophenol	<770	<860	n/a	n/a	n/a
Acenaphthene	37 J	<420	500,000	1,000,000	20,000
Acenaphthylene	<380	<420	500,000	1,000,000	100,000
Acetophenone	<380	<420	n/a	n/a	n/a
Anthracene	110 J	<420	500,000	1,000,000	100,000
Atrazine	<150	<170	n/a	n/a	n/a
Benzaldehyde	<380	<420	n/a	n/a	n/a



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MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
	11-13	19-21			
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Benzo(a)anthracene	640	<42	5,600	11,000	1,000
Benzo(a)pyrene	730	<42	1,000	1,100	1,000
Benzo(b)fluoranthene	840	41 J	5,600	11,000	1,000
Benzo(g,h,i)perylene	310 J	<420	500,000	1,000,000	100,000
Benzo(k)fluoranthene	270	<42	56,000	110,000	800
bis(2-Chloroethoxy)methane	<380	<420	n/a	n/a	n/a
bis(2-Chloroethyl)ether	<38	<42	n/a	n/a	n/a
bis(2-Chloroisopropyl)ether	<380	<420	n/a	n/a	n/a
bis(2-Ethylhexyl)phthalate	120 J	<420	n/a	n/a	n/a
Butylbenzylphthalate	<380	<420	n/a	n/a	n/a
Caprolactam	<380	<420	n/a	n/a	n/a
Carbazole	15 J	<420	n/a	n/a	n/a
Chrysene	620	<420	56,000	110,000	1,000
Dibenzo(a,h)anthracene	94	<42	560	1,100	330
Dibenzofuran	15 J	<420	350,000	1,000,000	7,000
Diethylphthalate	<380	<420	n/a	n/a	n/a
Dimethylphthalate	<380	<420	n/a	n/a	n/a
Di-n-butylphthalate	16 J	<420	n/a	n/a	n/a
Di-n-octylphthalate	<380	<420	n/a	n/a	n/a
Fluoranthene	1,000	35 J	500,000	1,000,000	100,000
Fluorene	24 J	<420	500,000	1,000,000	30,000
Hexachlorobenzene	<38	390	6,000	12,000	330
Hexachlorobutadiene	<77	<86	n/a	n/a	n/a
Hexachlorocyclopentadiene	<380	<420	n/a	n/a	n/a
Hexachloroethane	<38	<42	n/a	n/a	n/a
Indeno(1,2,3-cd)pyrene	400	<42	5,600	11,000	500
Isophorone	<150	<170	n/a	n/a	n/a
Naphthalene	12 J	<420	500,000	1,000,000	12,000
Nitrobenzene	<38	<42	n/a	n/a	n/a
N-Nitrosodi-N-Propylamine	<38	<42	n/a	n/a	n/a

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Brooklyn, NY  
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MW-05R - Soil Analytical Results (ug/Kg)

TestAmerica, Inc.

Methods: SW8270D

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
N-Nitrosodiphenylamine	<380	<420	n/a	n/a	n/a
o-cresol	<380	<420	500,000	1,000,000	330
p-cresol	<380	<420	500,000	1,000,000	330
Pentachlorophenol	<300	<340	6,700	55,000	800
Phenanthrene	480	64 J	500,000	1,000,000	100,000
Phenol (total)	<380	<420	500,000	1,000,000	330
Pyrene	1,100	25 J	500,000	1,000,000	100,000
1,2,3 Trichlorobenzene	n/a	14,000 JN !	n/a	n/a	n/a
1,2,3,5-Tetrachlorobenzene	n/a	8,200 JN !	n/a	n/a	n/a
1,2,4 Trichlorobenzene	n/a	40,000 JN !	n/a	n/a	n/a
1R-,alpha.-Pinene	340 JN !	n/a	n/a	n/a	n/a
2,6,10,14-Tetramethyl pentadeca	n/a	5,700 JN !	n/a	n/a	n/a
Benzo[e]pyrene	470 JN !	n/a	n/a	n/a	n/a
Unknown SVOC w/ 2nd highest conc.	370 J !	7,100 J !	n/a	n/a	n/a
Unknown SVOC w/ 3rd Highest Conc.	n/a	6,600 J !	n/a	n/a	n/a
Unknown SVOC w/ 3rd Highest Conc.	n/a	5,400 J !	n/a	n/a	n/a
Unknown SVOC w/ Highest Conc.	640 J !	10,000 J !	n/a	n/a	n/a
<b>Calculated</b>					
<b>Total SVOC's</b>	<b>8,653</b>	<b>103,955</b>	n/a	n/a	n/a

Notes:

! - Indicates parameter/value was reported as a Tentatively Identified Compound (TIC)

N - Indicates presumptive evidence of a compound

J - Indicates an estimated value below laboratory reporting limits, or value reported as a TIC

n/a - not analyzed / not applicable

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



ENVIRONMENTAL  
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REMEDIATIONS

**MW-05R - Soil Analytical Results (ug/Kg)**

**TestAmerica, Inc.**

**Methods: SW8081B**

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: Industrial	NYCRR 375-6: Unrestricted
	11-13	19-21			
	9/25/2017	9/25/2017			
	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
4,4,-DDT	<7.7	<170	47,000	94,000	3.3
4,4-DDD	<7.7	<170	92,000	180,000	3.3
4,4-DDE	<7.7	<170	62,000	120,000	3.3
Aldrin	<7.7	<170	680	1,400	5
alpha BHC	<2.3	<51	3,400	6,800	20
beta BHC	<2.3	<51	3,000	14,000	36
Chlordane	<77	<1700	n/a	n/a	n/a
delta-BHC	<2.3	<51	500,000	1,000,000	40
Dieldrin	<2.3	<51	1,400	2,800	5
Endosulfan I	<7.7	<170	200,000	920,000	2,400
Endosulfan II	<7.7	<170	200,000	920,000	2,400
Endosulfan Sulfate	<7.7	<170	200,000	920,000	2,400
Endrin	<7.7	<170	89,000	410,000	14
Endrin Aldehyde	<7.7	<170	n/a	n/a	n/a
Endrin ketone	<7.7	<170	n/a	n/a	n/a
Gamma-BHC(Lindane)	<2.3	<51	9,200	23,000	100
Heptachlor	<7.7	<170	15,000	29,000	42
Heptachlor Epoxide	<7.7	<170	n/a	n/a	n/a
Methoxychlor	<7.7	<170	n/a	n/a	n/a
Toxaphene	<77	<1700	n/a	n/a	n/a

**Notes:**

n/a - Not applicable

Empire Electric  
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MW-05R - Soil Analytical Results (mg/Kg)

TestAmerica, Inc.

Methods: SW6010C, SW7471B, SW9012

Location	MW-05R	MW-05R	NYCRR 375-6: Commercial	NYCRR 375-6: 6: Industrial	NYCRR 375-6: Unrestricted
Depth (ft BGS)	11-13	19-21			
Date Collected	9/25/2017	9/25/2017			
Time Collected	10:10 AM	10:45 AM			
Moisture (%)	12.9	21.8			
Aluminum	3,160	3,270	n/a	n/a	n/a
Antimony	<4.4	<4.8	n/a	n/a	n/a
Arsenic	4.4	4.6	16	16	13
Barium	22.40 J	11.40 J	400	10,000	350
Beryllium	0.35 J	0.45 J	590	2,700	7.2
Cadmium	<0.88	<0.97	9.3	60	2.5
Calcium	699 J	442 J	n/a	n/a	n/a
Chromium (total)	9.1	10.6	n/a	n/a	n/a
Cobalt	5.10 J	6.10 J	n/a	n/a	n/a
Copper	11.6	6	270	10,000	50
Cyanide	<1	<1.2	27	10,000	27
Iron	12,300	13,800	n/a	n/a	n/a
Lead	17.4	4.7	1,000	3,900	63
Magnesium	1,900	901 J	n/a	n/a	n/a
Manganese	232	118	10,000	10,000	1,600
Mercury	0.05	<0.02	2.8	5.7	0.18
Nickel	20.7	11.1	310	10,000	30
Potassium	592 J	750 J	n/a	n/a	n/a
Selenium	<4.4	<4.8	1,500	6,800	3.9
Silver	<2.2	<2.4	1,500	6,800	2
Sodium	128 J	110 J	n/a	n/a	n/a
Thallium	<4.4	<4.8	n/a	n/a	n/a
Vanadium	12.6	15.2	n/a	n/a	n/a
Zinc	33.6	37	10,000	10,000	109

Notes:

J - Indicates and estimated value below laboratory reporting limit

n/a - Not applicable or not analyzed

Table 35

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
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Well Coordinates (NY LISP)  
EAR Survey

Well ID	Easting (ft) Northing (ft)	Riser Elevation (ft)	Manhole Elevation (ft)
MW-01	978505.60 ----- 175752.83	24.60	25.10
MW-02	978557.73 ----- 175814.71	23.92	24.21
MW-03	978448.28 ----- 175935.63	20.03	20.59
MW-05R	978243.30 ----- 176094.93	15.96	16.17
MW-08	978593.16 ----- 175746.45	**	24.50
MW-09	978679.56 ----- 175866.00	**	22.67
MW-10	978228.19 ----- 176127.59	14.48	14.60
MW-12	978543.13 ----- 175865.14	22.42	22.61
MW-13	978471.53 ----- 175916.34	20.65	20.86
MW-14	978410.83 ----- 175968.16	19.44	19.83

**Notes:**

Arbitrary elevation datum used - based on USGS National Map land elevation at initial survey station.

\*\* - Elevation data for manhole cover is shown as these locations were not selected for tie-in.

Table 36

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Site # 224015



### Survey Locations (NY LISP)

#### Downgradient Features

#### EAR Survey

Station ID	Easting (ft) Northing (ft)	Elevation (ft)
Curblin-1	978217.80	14.51
	176172.80	
Curblin-2	978193.50	14.38
	176153.80	
Curblin-3	978136.40	12.85
	176214.60	
Curblin-4	978155.20	13.15
	176237.70	
Curblin-5	978124.40	12.53
	176266.10	
Curblin-6	978106.00	12.39
	176241.00	
Curblin-7	978003.50	10.11
	176363.50	
Curblin-8	977898.70	9.16
	176404.50	
Curblin-9	977939.90	9.3
	176414.90	
Manhole Cover	978069.40	11.15
	176293.60	

#### Notes:

Arbitrary elevation datum used - based on USGS  
National Map land elevation at initial survey station.



## FIGURES

- Figure 1: Site Location Map
- Figure 2: Site Map - Former Empire Electric Building Footprint
- Figure 3: Soil Analytical Results – Soil Borings, July-September 2017 (PCBs)
- Figure 4: Soil Analytical Results – Soil Borings, July-September 2017 (VOCs)
- Figure 5: Soil Analytical Results – Soil Borings, July-September 2017 (SVOCs)
- Figure 6: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (PCBs)
- Figure 7: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (VOCs)
- Figure 8: Groundwater Analytical Results – Temporary Wells, July-Oct 2017 (SVOCs)
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- Figure 11: Concrete Analytical Results, July-October 2017 (PCBs)
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- Figure 13: Groundwater Analytical Results – Monitoring Wells, July-Oct 2017 (PCBs)
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- Figure 15: Groundwater Analytical Results – Monitoring Wells, July-Oct 2017 (Metals)
- Figure 16: EAR Survey

# Figure 1

Site Location Map

**Legend**

-  5200 1st Ave
-  Sunset Park

  
5200 1st Ave

  
Sunset Park



2000 ft

Google Earth

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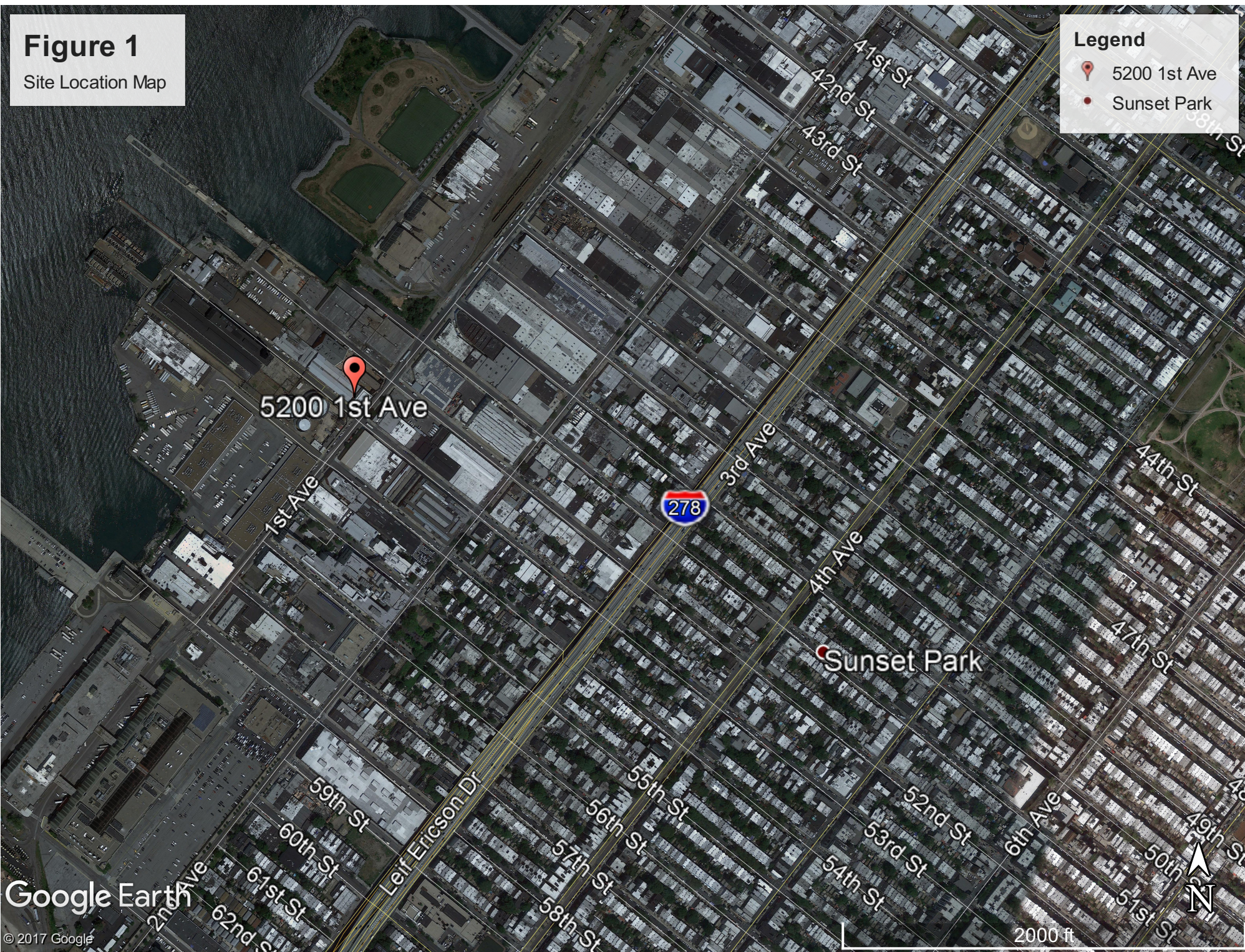
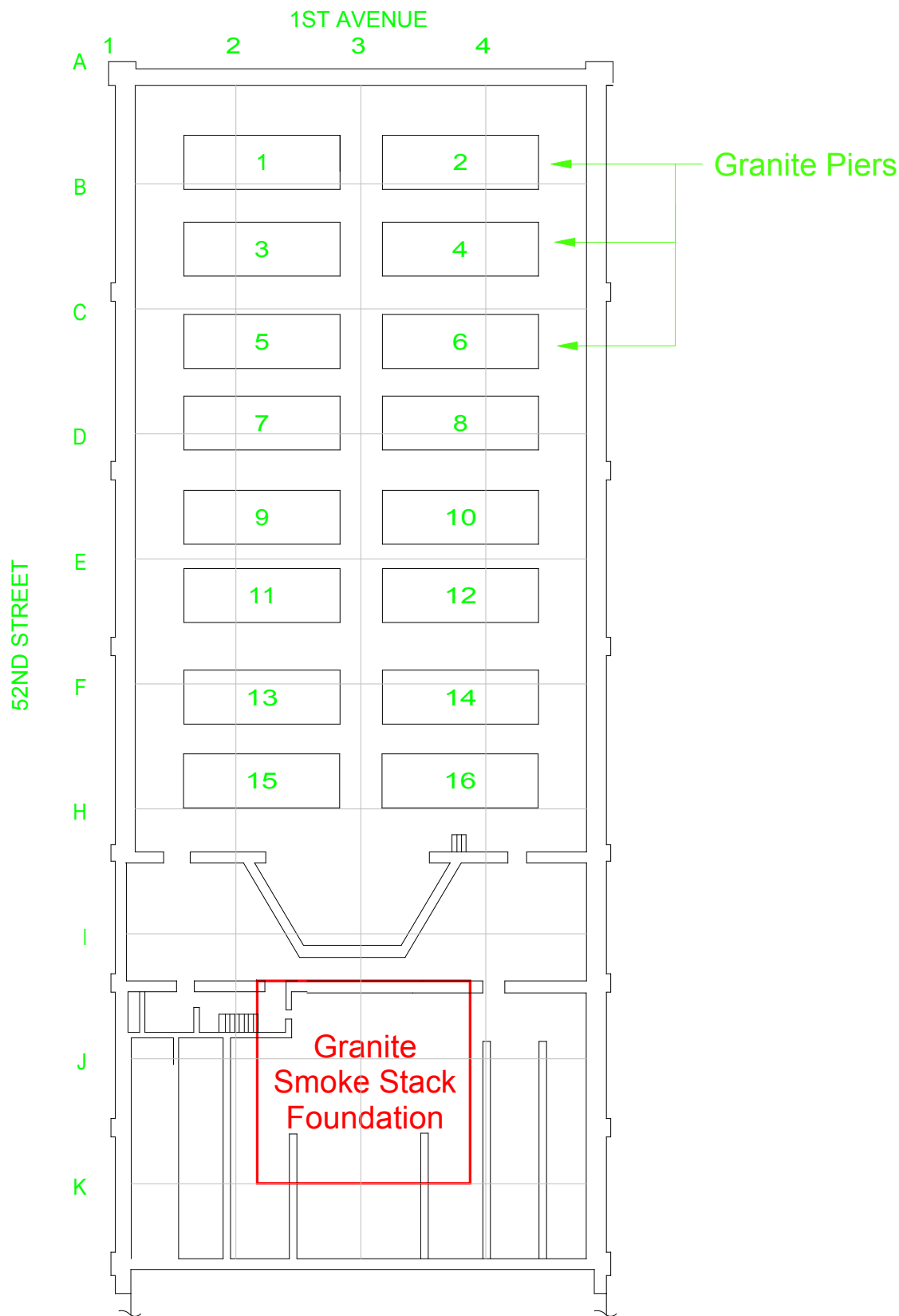
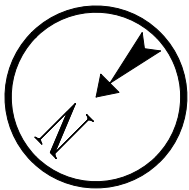




Figure 2



0 30  
SCALE IN FEET

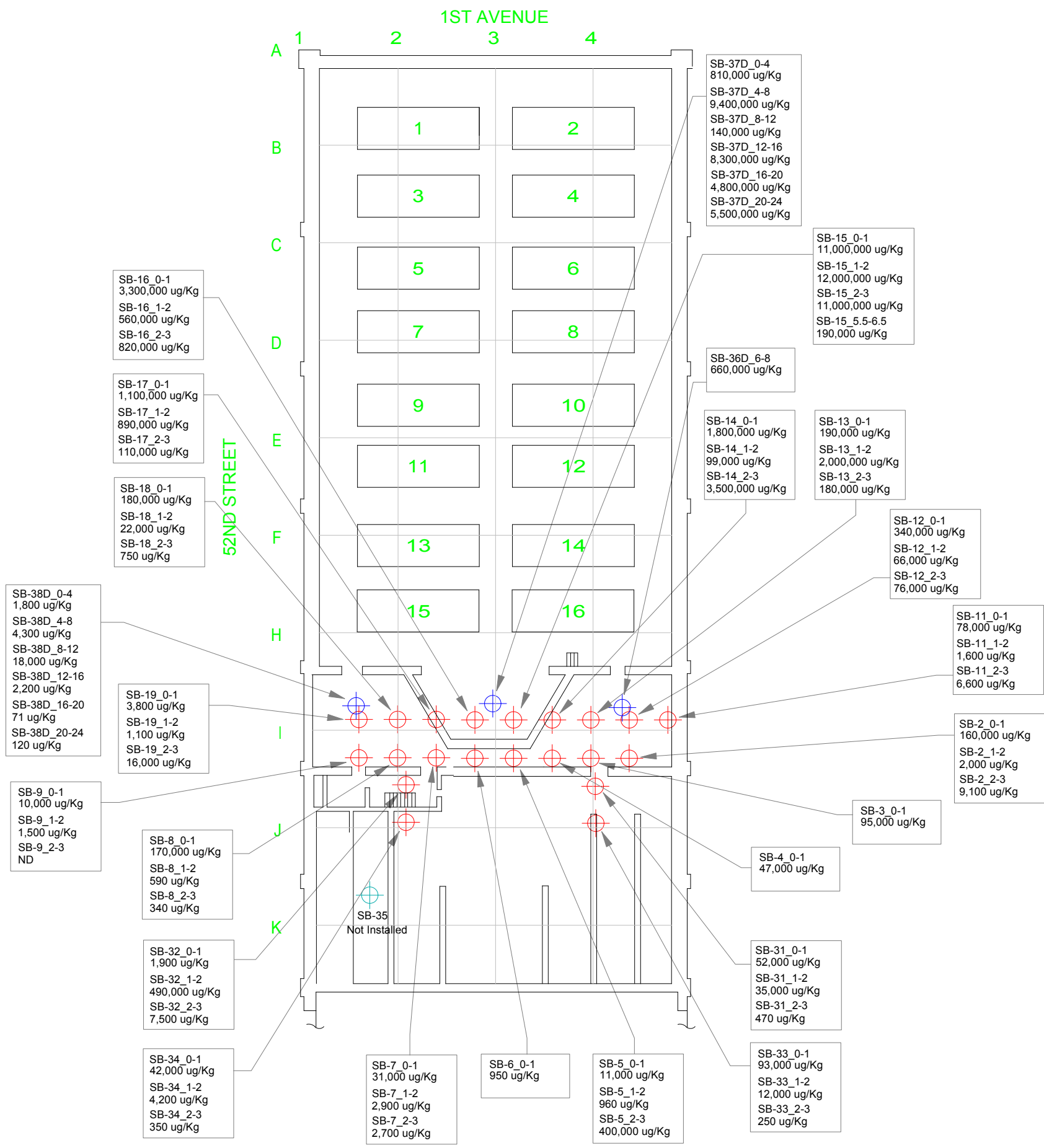
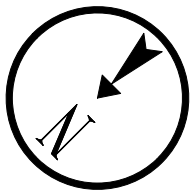


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Site Map  
Former Empire Electric Building  
Footprint

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
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Figure 3



⊕ - Manual Soil Boring (July 6 - 10, 2017)  
⊕ - Direct Push Soil Boring (Sept 27 - 28, 2017)  
 SB-31\_0-1 - Sample ID and Depth Below Grade (ft)  
 52,000 ug/Kg - Reported PCB Concentration (Test America, Inc.)

0 30  
SCALE IN FEET

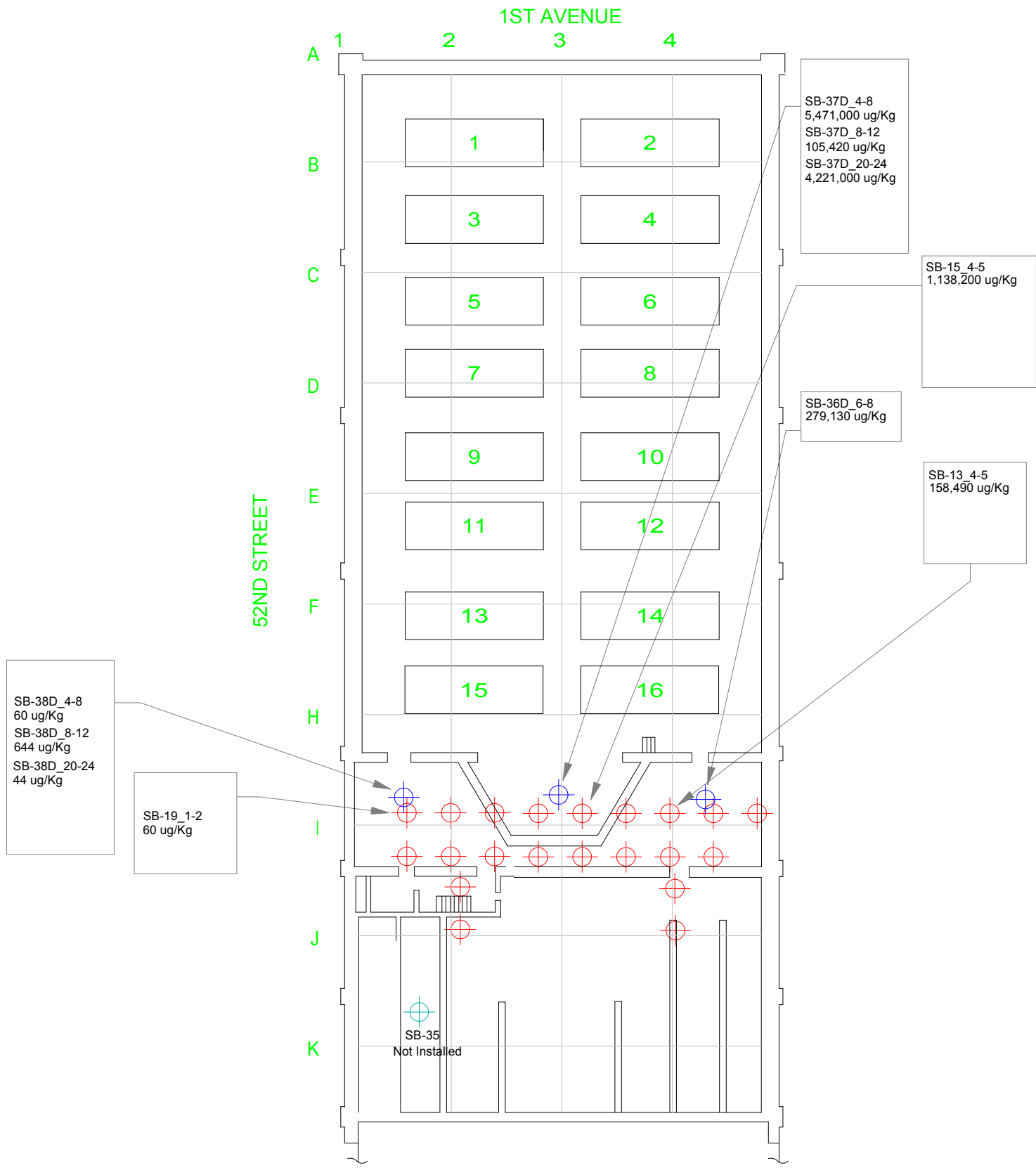
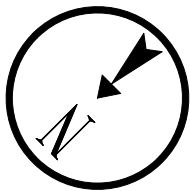


ENVIRONMENTAL  
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Soil Analytical Results  
Total PCBs  
Soil Borings  
July - September 2017

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
NYSDEC Site No. 224015

Figure 4



- Manual Soil Boring (July 6 - 10, 2017)
- Direct Push Soil Boring (Sept 27 - 28, 2017)
- SB-31\_0-1 - Sample ID and Depth Below Grade (ft)
- 52,000 ug/Kg - Reported VOC Concentration (Test America, Inc.)

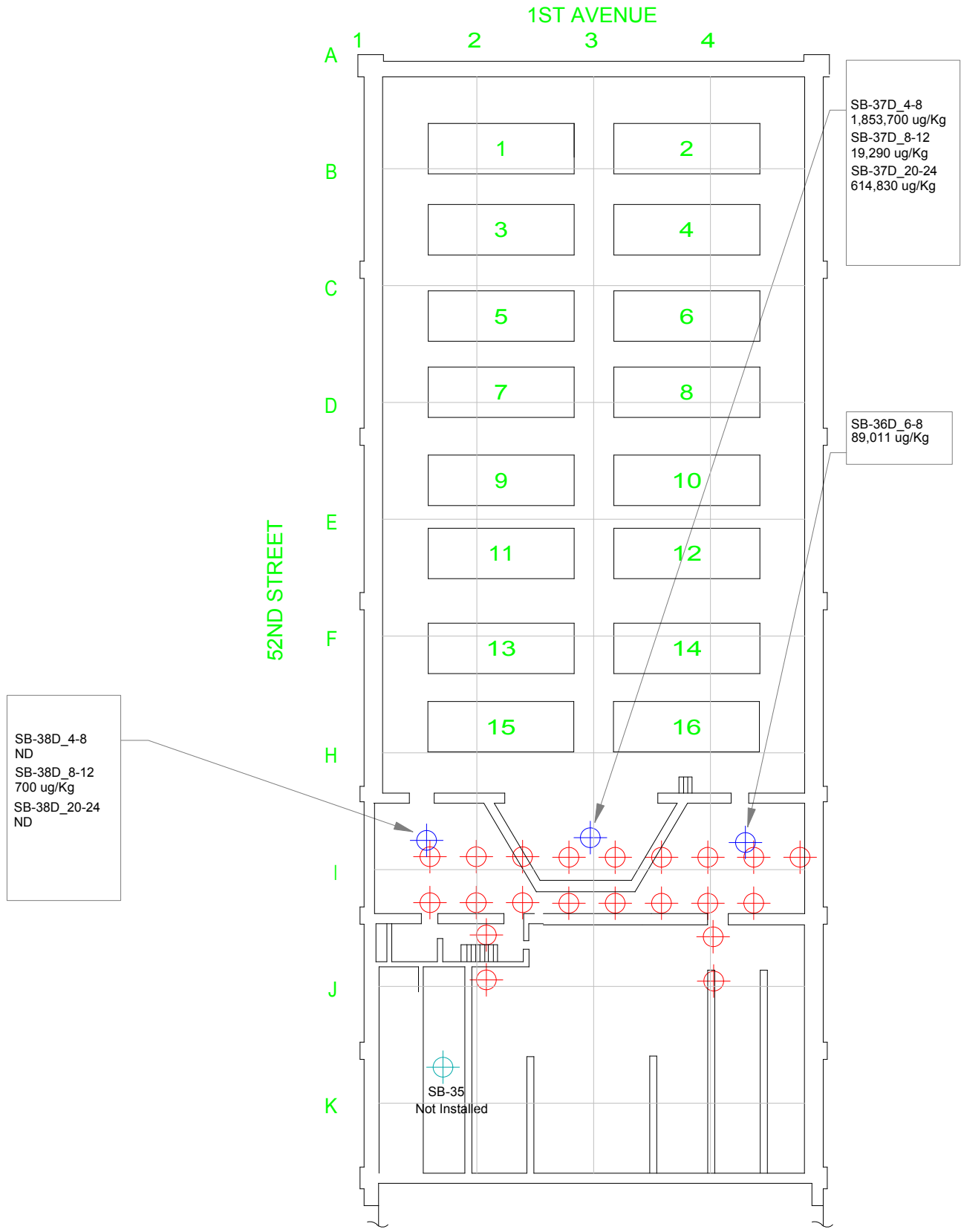
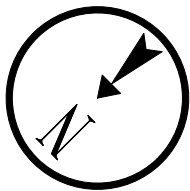
0 30  
SCALE IN FEET



Soil Analytical Results  
Total VOCs  
Soil Borings  
July - September 2017

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
NYSDEC Site No. 224015

Figure 5



- Manual Soil Boring (July 6 - 10, 2017)
- Direct Push Soil Boring (Sept 27 - 28, 2017)
- SB-31\_0-1 - Sample ID and Depth Below Grade (ft)
- 52,000 ug/Kg - Reported SVOC Concentration (Test America, Inc.)
- ND - Not Detected

0 30  
SCALE IN FEET


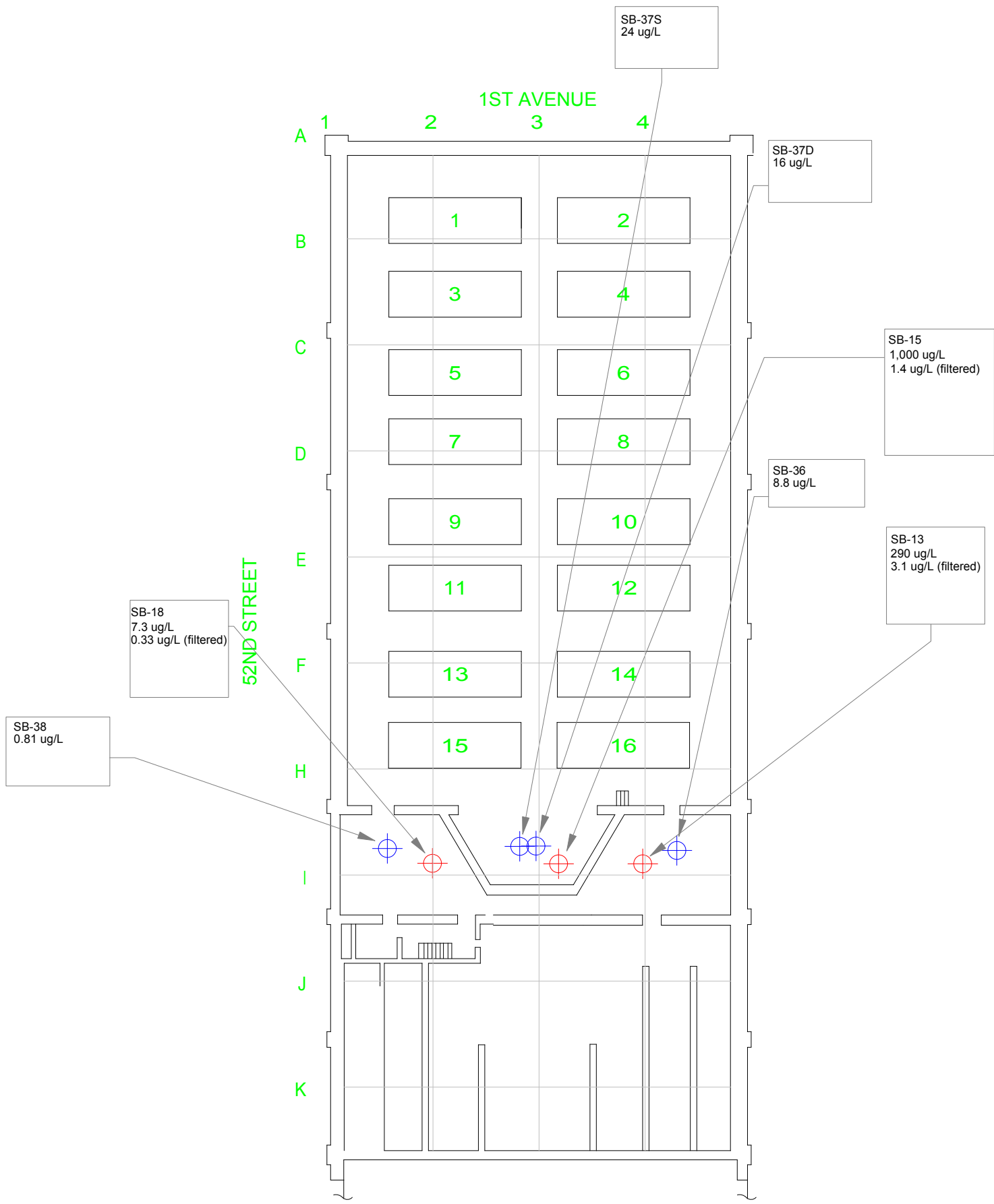
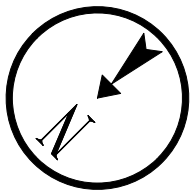
 <p>ENVIRONMENTAL ASSESSMENT &amp; REMIEDIATIONS</p>	<p>Soil Analytical Results Total SVOCs Soil Borings July - September 2017</p>	<p>Empire Electric 5200 First Avenue Brooklyn, NY NYSDEC Site No. 224015</p>
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Figure 6

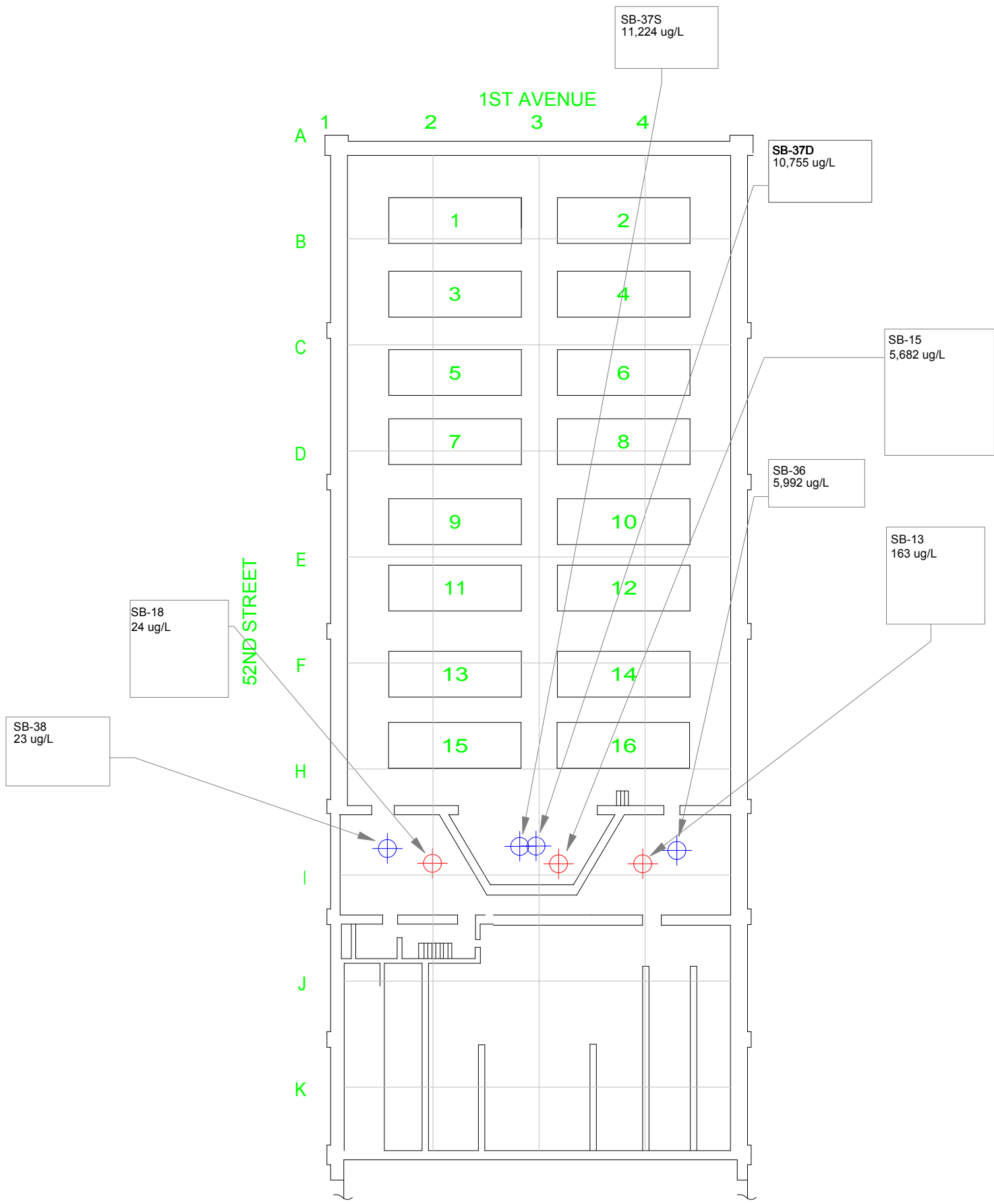
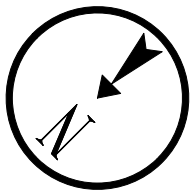




- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported PCB Concentration (Test America, Inc.)

0 30  
SCALE IN FEET

<p>ENVIRONMENTAL ASSESSMENT &amp; REMEDIATIONS</p>	<p>Groundwater Analytical Results Total PCBs Temporary Wells July - October 2017</p>	<p>Empire Electric 5200 First Avenue Brooklyn, NY NYSDEC Site No. 224015</p>
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Figure 7



-  - Manual Boring (Installed July 6 - 10, 2017)
-  - Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported VOC Concentration (Test America, Inc.)

0 30  
SCALE IN FEET


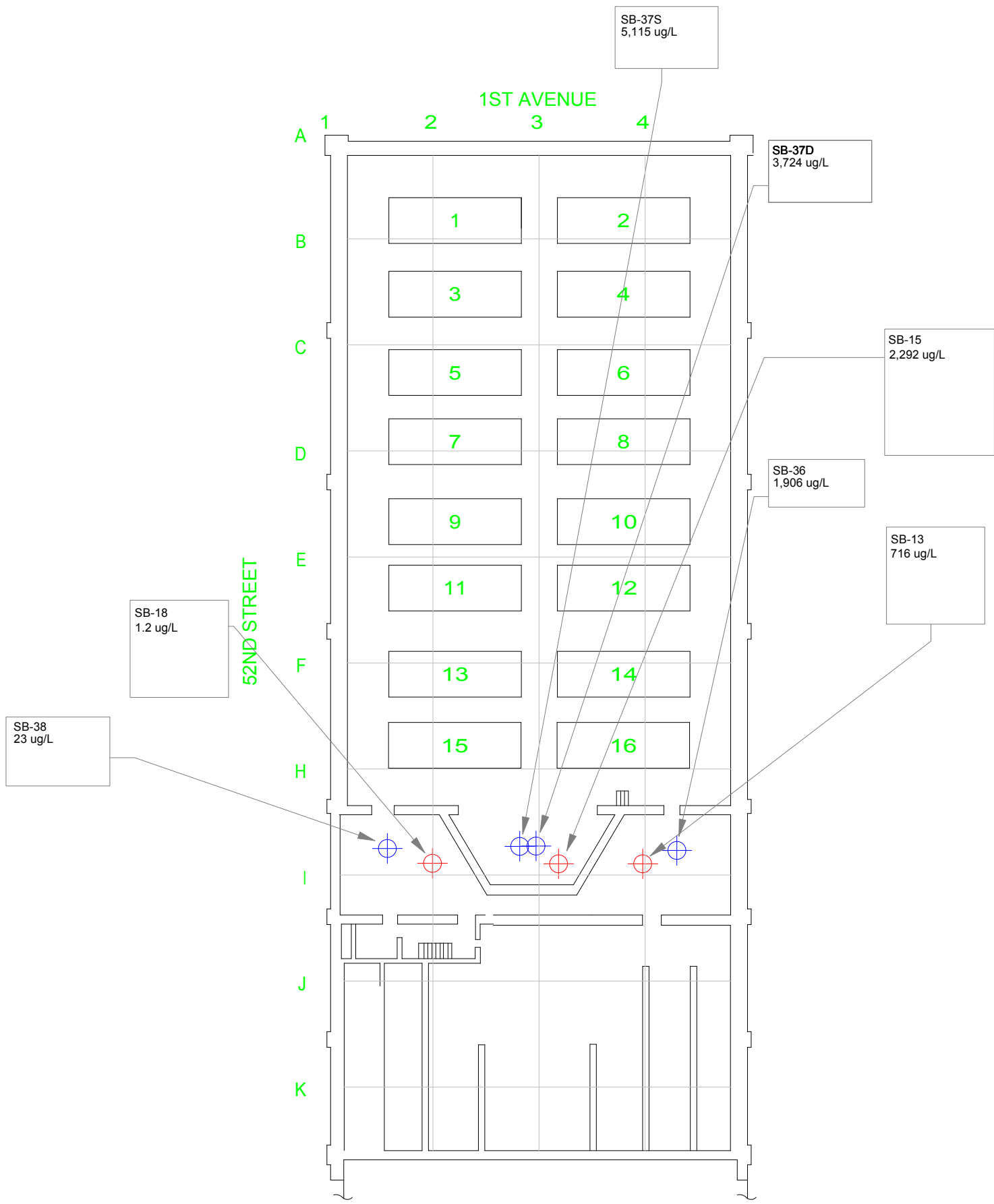
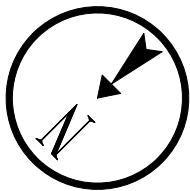


 <p>ENVIRONMENTAL ASSESSMENT &amp; REMEDIATIONS</p>	<p>Groundwater Analytical Results Total VOCs Temporary Wells July - October 2017</p>	<p>Empire Electric 5200 First Avenue Brooklyn, NY NYSDEC Site No. 224015</p>
--	--	--

Figure 8



-  - Manual Boring (Installed July 6 - 10, 2017)
-  - Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported SVOC Concentration (Test America, Inc.)

0 30  
SCALE IN FEET


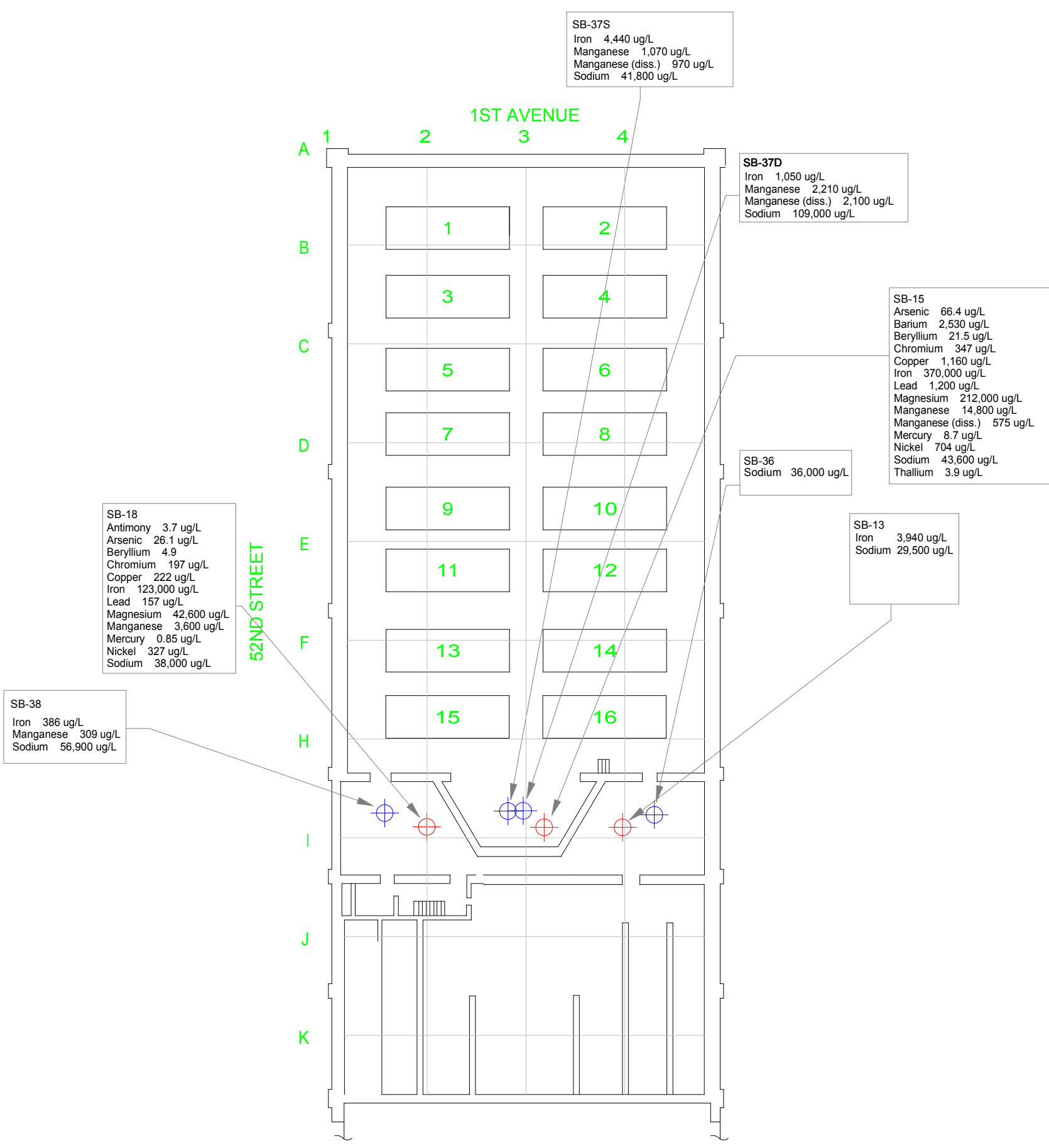
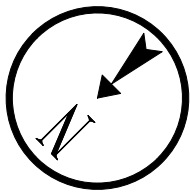
 <p>ENVIRONMENTAL ASSESSMENT &amp; REMEDIATIONS</p>	<p>Groundwater Analytical Results Total SVOCs Temporary Wells July - October 2017</p>	<p>Empire Electric 5200 First Avenue Brooklyn, NY NYSDEC Site No. 224015</p>
--	---	--

Figure 9



Only Parameters Exceeding NYSDEC TOGS 1.1.1 Standards or Guidance Values Are Posted

- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ug/L - Reported Metals Concentration (Test America, Inc.)

0 30  
SCALE IN FEET


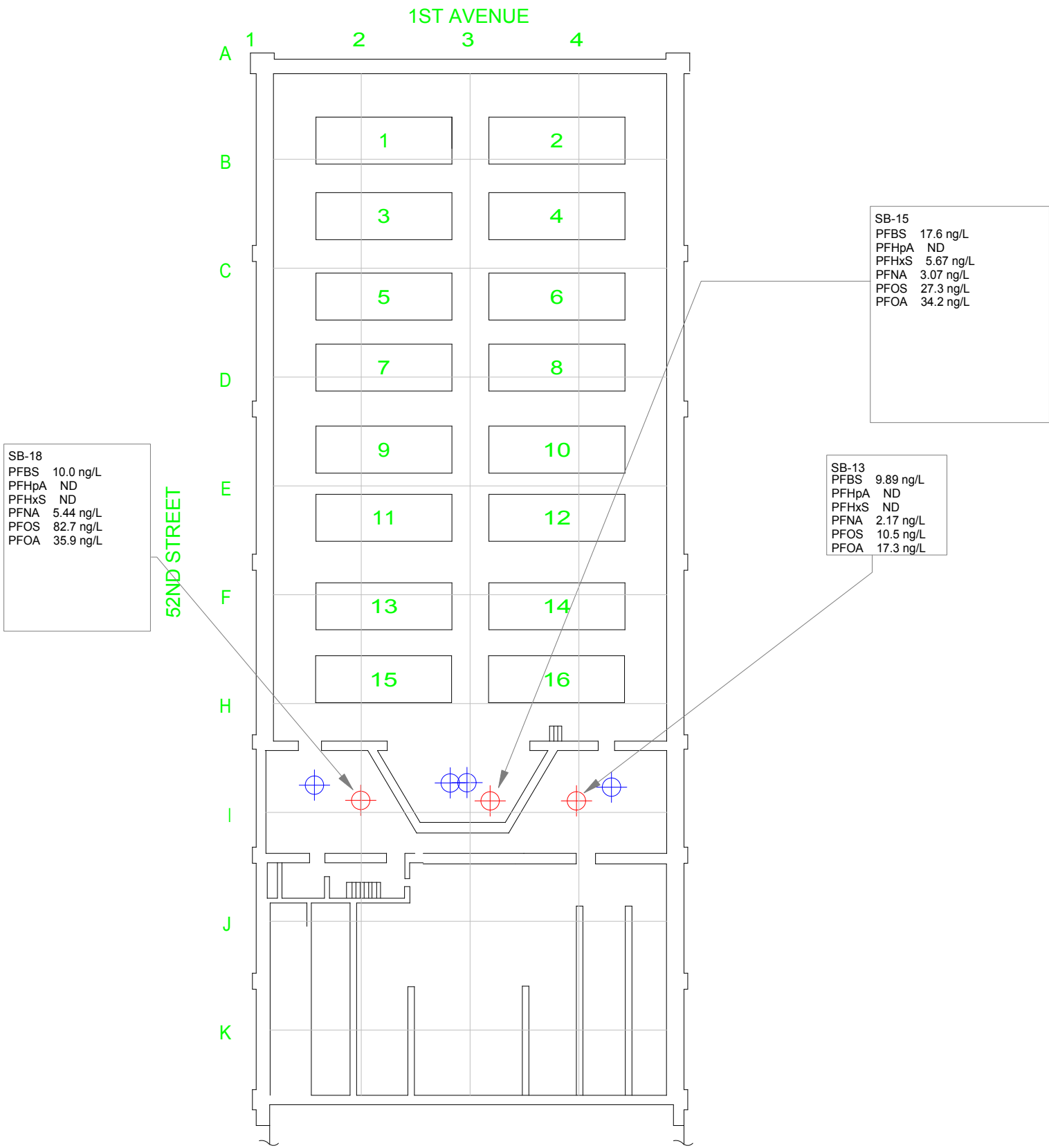
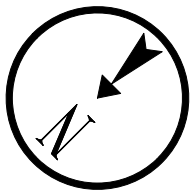
 <p><b>ENVIRONMENTAL ASSESSMENT &amp; REMEDIATIONS</b></p>	<p><b>Groundwater Analytical Results</b></p> <p><b>Metals</b></p> <p><b>Temporary Wells</b></p> <p><b>July - October 2017</b></p>	<p><b>Empire Electric</b></p> <p><b>5200 First Avenue</b></p> <p><b>Brooklyn, NY</b></p> <p><b>NYSDEC Site No. 224015</b></p>
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Figure 10



PFBS = Perfluorobutanesulfonic Acid  
 PFHpA = Perfluoroheptanoic Acid  
 PFHxS = Perfluorohexanesulfonic Acid  
 PFNA = Perfluorononanoic Acid  
 PFOS = Perfluorooctanesulfonic Acid  
 PFOA = Perfluorooctanoic Acid

- Manual Boring (Installed July 6 - 10, 2017)
- Direct Push Soil Boring (Installed Sept 27 - 28, 2017)
- SB-31 - Sample ID
- 52,000 ng/L - Reported PFA Concentration (Test America, Inc.)
- ND - Not Detected

0 30  
 SCALE IN FEET


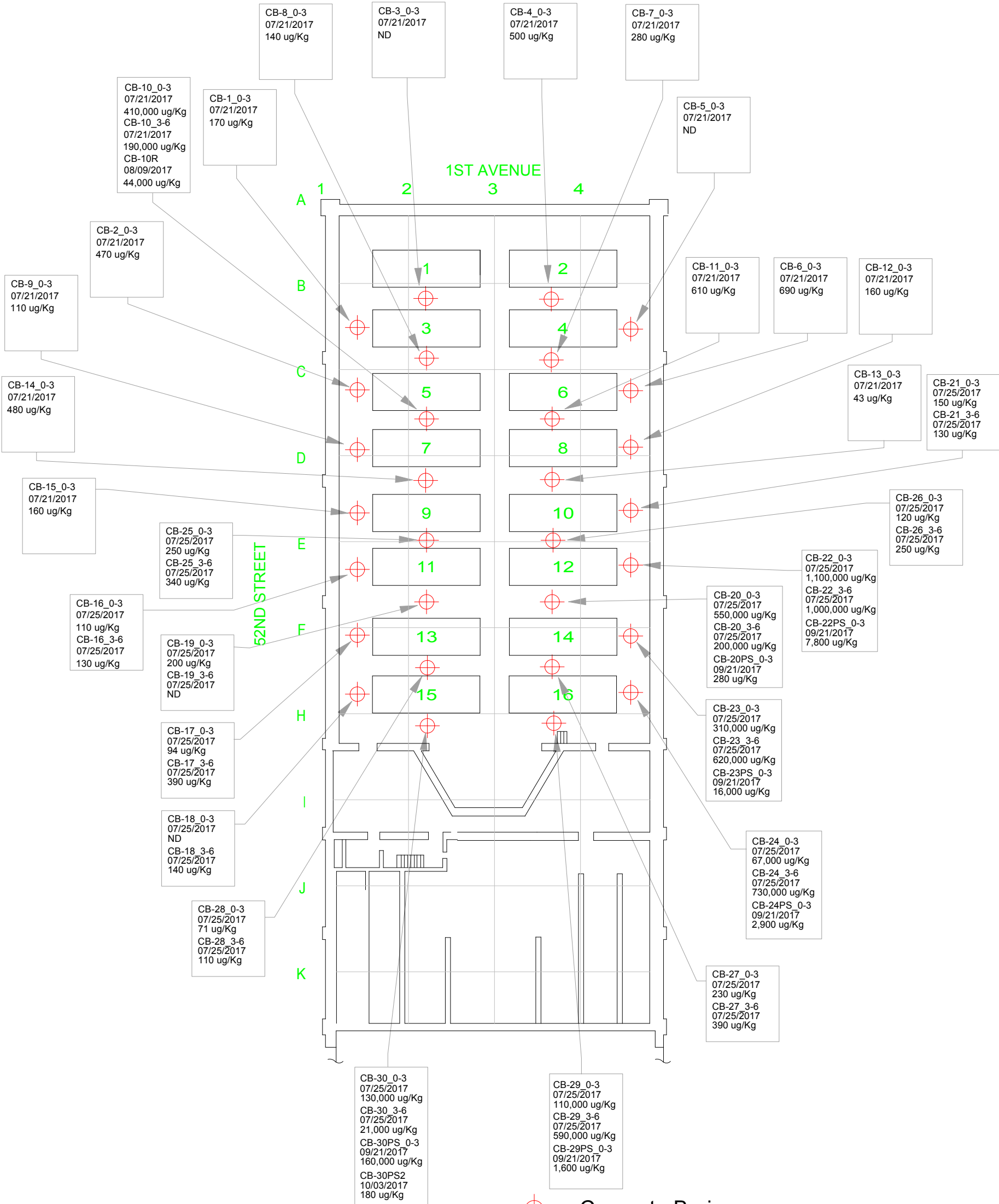
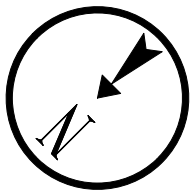

 <p><b>ENVIRONMENTAL          ASSESSMENT &amp;          REMEDIATIONS</b></p>	<p><b>Groundwater Analytical Results</b>  <b>Perfluorinated Compounds</b>  <b>Temporary Wells</b>  <b>July - October 2017</b></p>	<p><b>Empire Electric</b>  <b>5200 First Avenue</b>  <b>Brooklyn, NY</b>  <b>NYSDEC Site No. 224015</b></p>
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Figure 11



 - Concrete Boring  
 CB-31\_0-3 - Sample ID and Depth Below Grade (in)  
 07/25/17 - Date Sampled  
 52,000 ug/Kg - Reported PCB Concentration (Test America, Inc.)  
 ND - Not Detected

0 30  
SCALE IN FEET

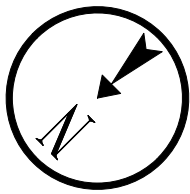


ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

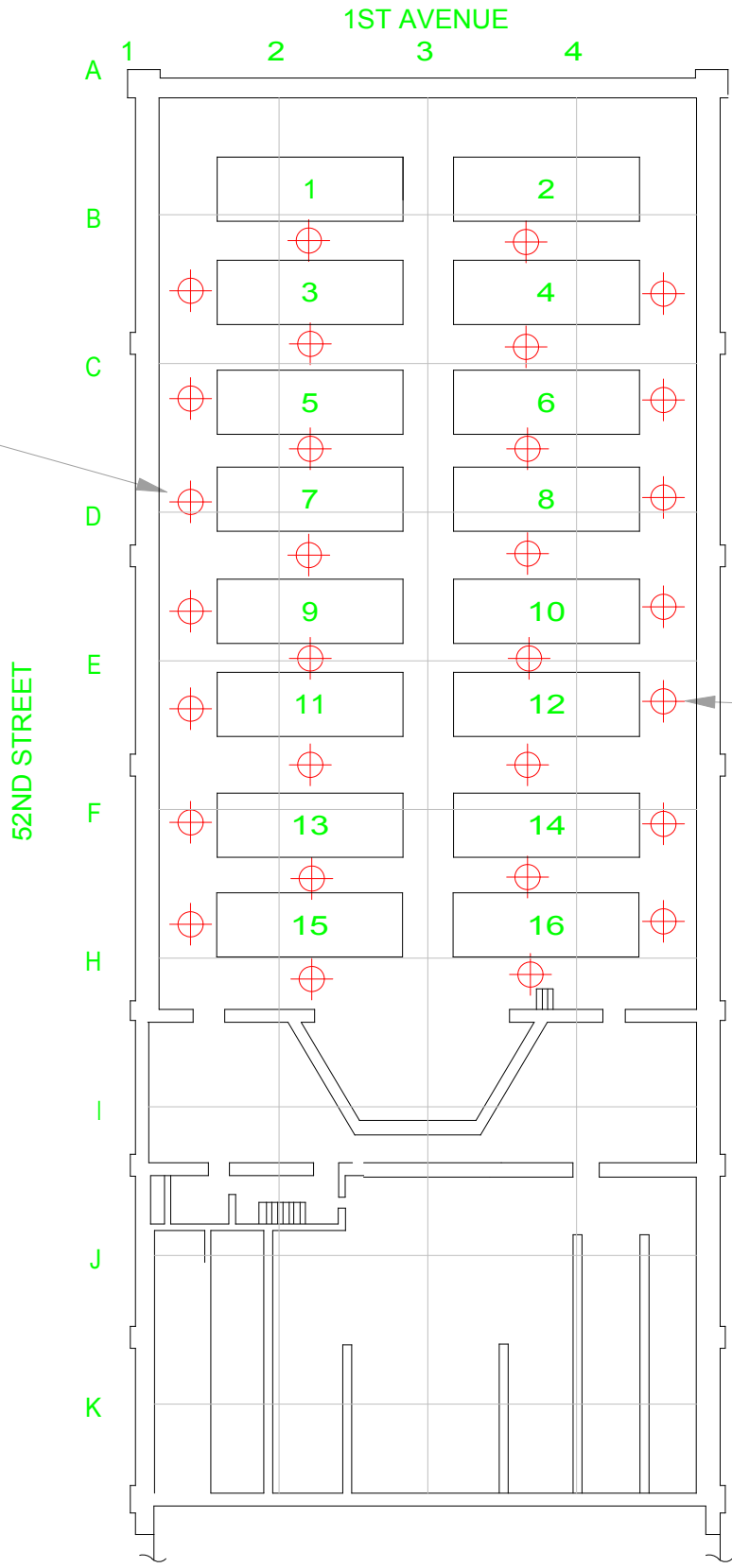
Concrete Analytical Results  
Total PCBs  
Concrete Borings  
July - October 2017

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
NYSDEC Site No. 224015

Figure 12



CB-9\_3-6  
07/25/2017  
53 ug/Kg



CB-22\_0-3  
07/25/2017  
833,000 ug/Kg

- Concrete Boring
- CB-31\_0-3 - Sample ID and Depth Below Grade (in)
- 07/25/17 - Date Sampled
- 52,000 ug/Kg - Reported VOC Concentration (Test America, Inc.)
- ND - Not Detected

0 30  
SCALE IN FEET



Concrete Analytical Results  
Total VOCs  
Concrete Borings  
July - October 2017

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
NYSDEC Site No. 224015

Figure 13



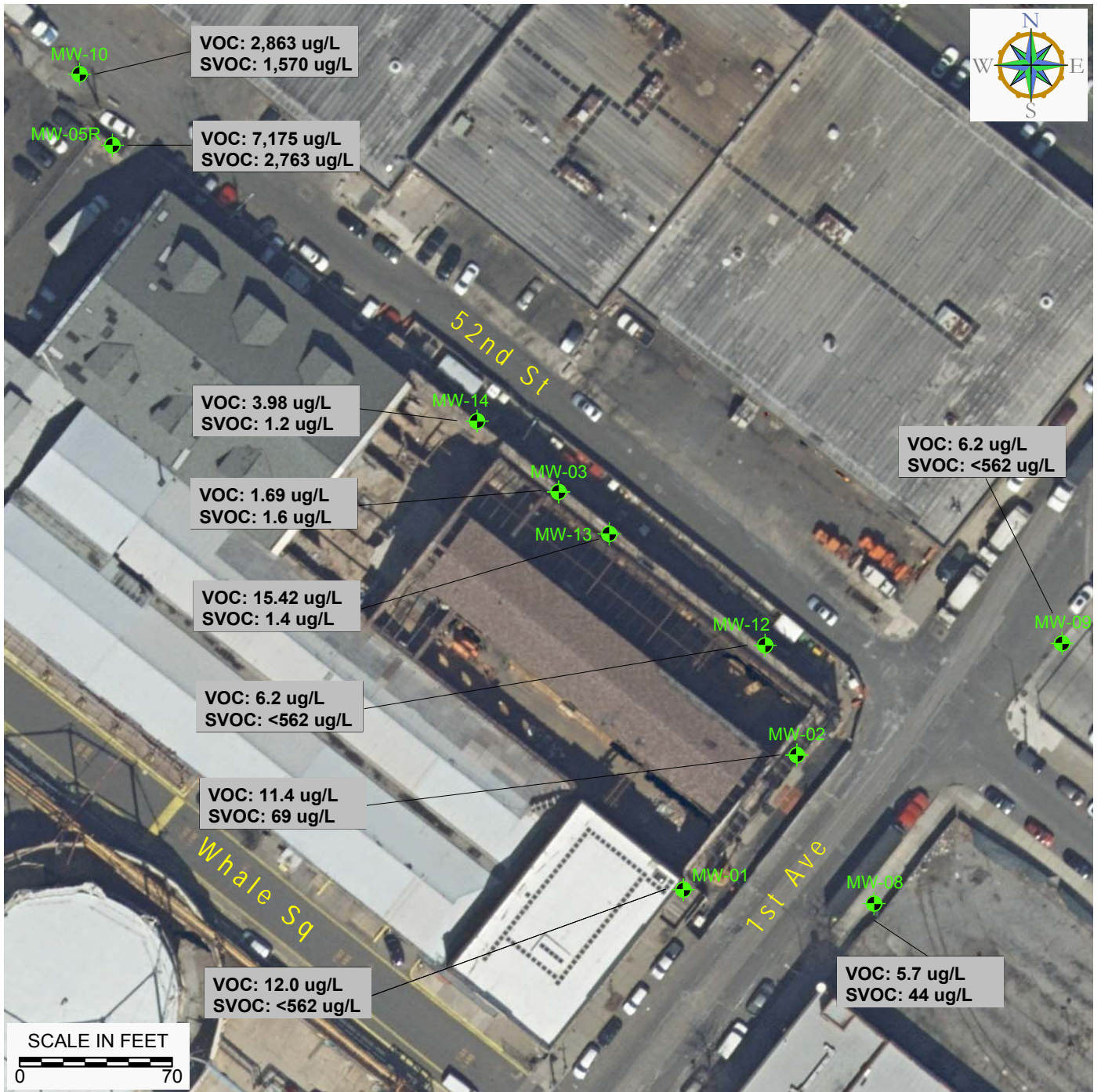
Monitoring Well  
Test America, Inc. Analytical Results




**Groundwater Analytical Results**  
**Monitoring Wells**  
**Total PCB's**  
**July-October 2017**

Empire Electric  
5200 First Avenue  
Brooklyn, NY  
NYSDEC Site No. 224015

Figure 14



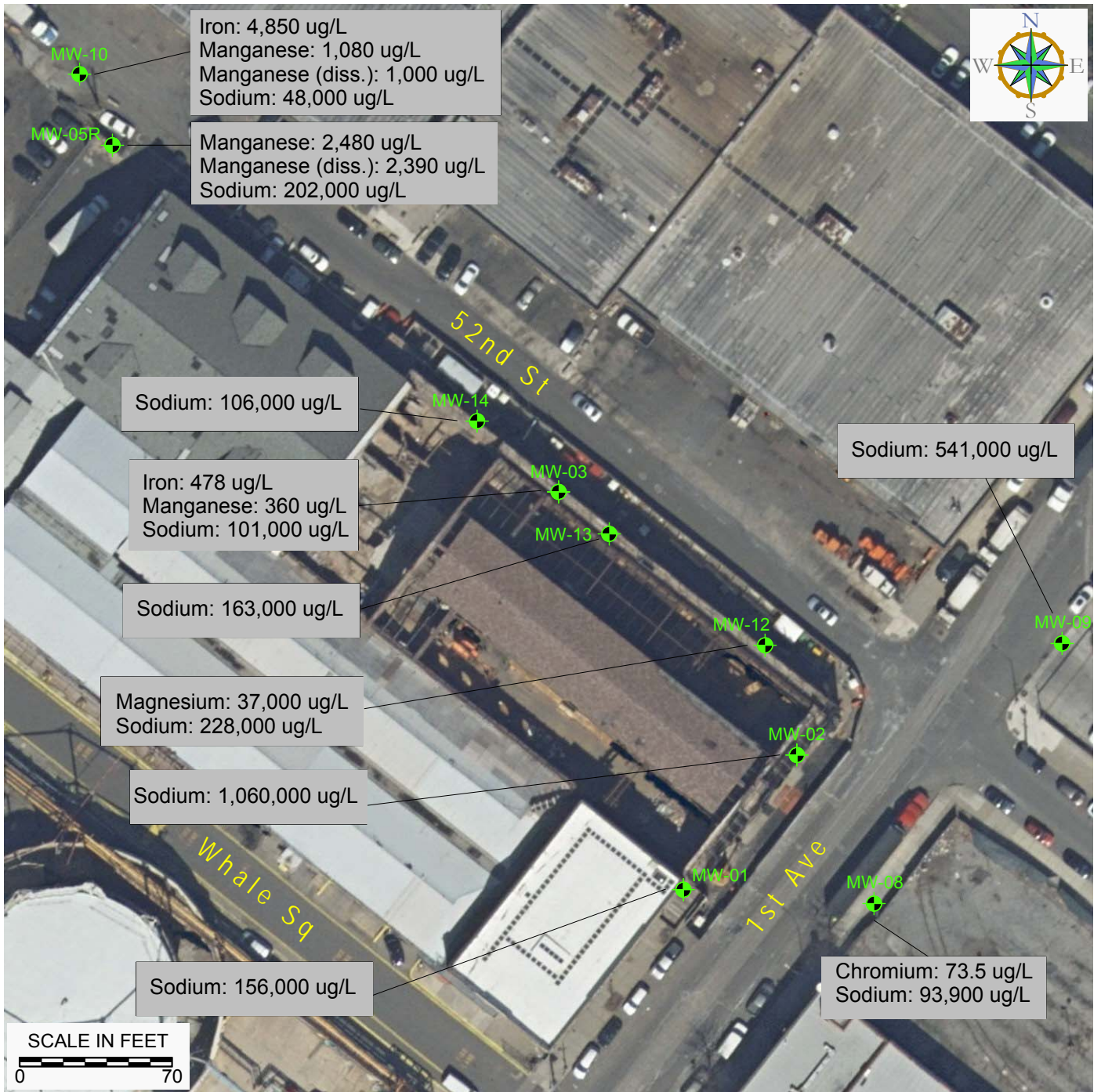
 Monitoring Well  
 Test America, Inc. Analytical Results



**Groundwater Analytical Results**  
**Monitoring Wells**  
**Total VOC's, Total SVOC's**  
**July-October 2017**

Empire Electric  
 5200 First Avenue  
 Brooklyn, NY  
 NYSDEC Site No. 224015

Figure 15



 Monitoring Well  
 Test America, Inc. Analytical Results  
 Only parameters with values exceeding  
 TOGS 1.1.1 standards/guidance values are  
 posted.

Figure 16





## Appendix A: Boring Logs

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225 Atlantic Avenue  
Patchogue, NY 11772  
Office: 631.447.6400  
Fax: 631.447.6497  
Toll-Free: 1.888.EAR.6789  
E-mail: info@enviro-asmmt.com  
www.Enviro-Asmmt.com

Installation Date 09/25/17

Page 1 of 2

## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-BROOKLYN5200</u>	CASING Type <u>PVC</u> Diameter <u>2"</u> Length <u>14'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>2"</u> Slot <u>0.010"</u> Length <u>10'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Grout (0'-9' BGS) &amp; Well gravel (12'-24' BGS)</u>
WELL ID <u>MW-05R</u>	CASING SEAL <u>Bentonite (Hydrated Pellets) (9'-12' BGS)</u>
DRILLING METHOD <u>Hollow Stem Auger (BK-81 Rig)</u>	SECURITY <u>8"x12" Steel Bolt-Down Manhole cover</u> <u>2" locking well cap</u>
DRILLING COMPANY <u>AARCO Environmental</u>	FINISH <u>2'x2' concrete pad</u>
HEAD DRILLER <u>T. Kelly</u>	COMMENTS <u>MW-05 is 9.5' SW of SW curb of 52nd St.,</u> <u>29.25' NW of NW corner of building #2 52nd</u> <u>St., and 19.5' S of utility pole #6.</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>6"</u>	
SAMPLE METHOD <u>Split-Spoon Sampler (SS)</u>	
DEPTH-TO-WATER <u>13.02'</u>	
TOTAL WELL DEPTH <u>24'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-5'	Post hole; cleared.				
		5'-7'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.20'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	5'-7'	324 ppm	73
		7'-9'	0.30'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.80'-Brown fine sand, trace medium sand, trace coarse sand, moist, no odor.	SS	7'-9'	25.6 ppm	55
		9'-11'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 1.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor.	SS	9'-11'	68.4 ppm	75
		11'-13'	0.25'-Black fine sand, trace medium sand, trace coarse sand, moist, no odor. 0.25'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, moist, no odor. 0.65'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet, no odor.	SS	11'-13'	149.3 ppm	58
▼ 13.02'		13'-15'	1.70'-Brown fine sand, trace silt, trace medium sand, trace coarse sand, wet, no odor. 0.30'-Black fine sand, trace silt, trace medium sand, trace coarse sand, wet, odor.	SS	13'-15'	3.9 ppm	100
		15'-17'	0.90'-Brown fine sand, trace silt, trace medium sand, wet, no odor. 0.05'-Black fine sand and medium sand, trace coarse sand, wet, odor.	SS	15'-17'	6.7 ppm	48
		17'-19'	1.40'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	17'-19'	87.1 ppm	70
TWD 24'		19'-21'	2.00'-Brown fine sand, trace medium sand, trace coarse sand, wet, odor.	SS	19'-21'	120.4 ppm	100
	NOT TO SCALE						

Backfill/Gravel Bentonite Grout





225 Atlantic Avenue  
 Patchogue, New York 11772  
 Tel (631) 447-6400  
 Fax (631) 447-6497  
 Email Info@Enviro-Asmnt.com  
 www.Enviro-Asmnt.com

Installation Date 07/06/17

Page 1 of 1

# DRILLING LOG - Temporary Borehole Installation

## DRILLING DETAILS

PROJECT/SITE NAME DEC-BROOKLYN5200  
 SITE ADDRESS Empire Electric  
5200 First Avenue  
Brooklyn, NY  
 SITE ID NUMBER 224015  
 BORING I.D. SB-2  
 PURPOSE Investigation  
 DRILLING METHOD Hand Auger  
 DRILLING COMPANY EAR  
 HEAD DRILLER J. Lohan  
 LOGGED BY J. Lohan  
 BOREHOLE DIAMETER 4"  
 DEPTH-TO-WATER ~3'-5'  
 TOTAL BORING DEPTH 3'

SOIL SAMPLING  
 Type S/S hand auger.

GROUNDWATER SAMPLING  
 Type \_\_\_\_\_

BACKFILL Native  
 FINISH Match existing (no finish, in dirt)

COMMENTS \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Depth Below Grade	Soil Lithology/Field Observations				
	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-1'	Brown fine sand, trace medium sand, trace gravel; moist, no odor	HA	0'-1'	2.1	-
1'-2'	Brown fine sand, trace medium sand, trace gravel; moist, no odor	HA	1'-2'	2.6	-
2'-3'	Brown fine sand, trace medium sand, trace gravel; moist, no odor	HA	2'-3'	10.0	-

"Trace", 1 - 10%            "Some", 20 - 30%  
 "Little", 10 - 20%        "And", 30 - 50%







225 Atlantic Avenue  
Patchogue, New York 11772  
Tel (631) 447-6400  
Fax (631) 447-6497  
Email [Info@Enviro-Asmnt.com](mailto:Info@Enviro-Asmnt.com)  
[www.Enviro-Asmnt.com](http://www.Enviro-Asmnt.com)

Installation Date 07/06/17  
Page 1 of 1

## DRILLING LOG - Temporary Borehole Installation

### DRILLING DETAILS

<table border="0"> <tr><td>PROJECT/SITE NAME</td><td><u>DEC-BROOKLYN5200</u></td></tr> <tr><td>SITE ADDRESS</td><td><u>Empire Electric</u></td></tr> <tr><td></td><td><u>5200 First Avenue</u></td></tr> <tr><td></td><td><u>Brooklyn, NY</u></td></tr> <tr><td>SITE ID NUMBER</td><td><u>224015</u></td></tr> <tr><td>BORING I.D.</td><td><u>SB-5</u></td></tr> <tr><td>PURPOSE</td><td><u>Investigation</u></td></tr> <tr><td>DRILLING METHOD</td><td><u>Hand Auger</u></td></tr> <tr><td>DRILLING COMPANY</td><td><u>EAR</u></td></tr> <tr><td>HEAD DRILLER</td><td><u>J. Lohan</u></td></tr> <tr><td>LOGGED BY</td><td><u>J. Lohan</u></td></tr> <tr><td>BOREHOLE DIAMETER</td><td><u>4"</u></td></tr> <tr><td>DEPTH-TO-WATER</td><td><u>~3'-5'</u></td></tr> <tr><td>TOTAL BORING DEPTH</td><td><u>3'</u></td></tr> </table>	PROJECT/SITE NAME	<u>DEC-BROOKLYN5200</u>	SITE ADDRESS	<u>Empire Electric</u>		<u>5200 First Avenue</u>		<u>Brooklyn, NY</u>	SITE ID NUMBER	<u>224015</u>	BORING I.D.	<u>SB-5</u>	PURPOSE	<u>Investigation</u>	DRILLING METHOD	<u>Hand Auger</u>	DRILLING COMPANY	<u>EAR</u>	HEAD DRILLER	<u>J. Lohan</u>	LOGGED BY	<u>J. Lohan</u>	BOREHOLE DIAMETER	<u>4"</u>	DEPTH-TO-WATER	<u>~3'-5'</u>	TOTAL BORING DEPTH	<u>3'</u>	<table border="0"> <tr><td colspan="2">SOIL SAMPLING</td></tr> <tr><td>Type</td><td><u>S/S hand auger.</u></td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2">GROUNDWATER SAMPLING</td></tr> <tr><td>Type</td><td>_____</td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> <tr><td>BACKFILL</td><td><u>Native</u></td></tr> <tr><td>FINISH</td><td><u>Match existing (no finish, in dirt)</u></td></tr> <tr><td>COMMENTS</td><td>_____</td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> <tr><td colspan="2"> </td></tr> </table>	SOIL SAMPLING		Type	<u>S/S hand auger.</u>					GROUNDWATER SAMPLING		Type	_____					BACKFILL	<u>Native</u>	FINISH	<u>Match existing (no finish, in dirt)</u>	COMMENTS	_____						
PROJECT/SITE NAME	<u>DEC-BROOKLYN5200</u>																																																								
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COMMENTS	_____																																																								

Depth Below Grade	Soil Lithology/Field Observations				
	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-1'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	0'-1'	2.6	-
1'-2'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	1'-2'	2.0	-
2'-3'	Brown fine sand, little medium sand, trace coarse sand, trace gravel; moist, no odor	HA	2'-3'	2.8	-

"Trace", 1 - 10%      "Some", 20 - 30%  
 "Little", 10 - 20%      "And", 30 - 50%



## DRILLING LOG - Temporary Borehole Installation

### DRILLING DETAILS

<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black;">PROJECT/SITE NAME</td><td style="border-bottom: 1px solid black;"><u>DEC-BROOKLYN5200</u></td></tr> <tr><td style="border-bottom: 1px solid black;">SITE ADDRESS</td><td style="border-bottom: 1px solid black;"><u>Empire Electric</u></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"><u>5200 First Avenue</u></td></tr> <tr><td style="border-bottom: 1px solid black;"></td><td style="border-bottom: 1px solid black;"><u>Brooklyn, NY</u></td></tr> <tr><td style="border-bottom: 1px solid black;">SITE ID NUMBER</td><td style="border-bottom: 1px solid black;"><u>224015</u></td></tr> <tr><td style="border-bottom: 1px solid black;">BORING I.D.</td><td style="border-bottom: 1px solid black;"><u>SB-6</u></td></tr> <tr><td style="border-bottom: 1px solid black;">PURPOSE</td><td style="border-bottom: 1px solid black;"><u>Investigation</u></td></tr> <tr><td style="border-bottom: 1px solid black;">DRILLING METHOD</td><td style="border-bottom: 1px solid black;"><u>Hand Auger</u></td></tr> <tr><td style="border-bottom: 1px solid black;">DRILLING COMPANY</td><td style="border-bottom: 1px solid black;"><u>EAR</u></td></tr> <tr><td style="border-bottom: 1px solid black;">HEAD DRILLER</td><td style="border-bottom: 1px solid black;"><u>J. Lohan</u></td></tr> <tr><td style="border-bottom: 1px solid black;">LOGGED BY</td><td style="border-bottom: 1px solid black;"><u>J. Lohan</u></td></tr> <tr><td style="border-bottom: 1px solid black;">BOREHOLE DIAMETER</td><td style="border-bottom: 1px solid black;"><u>4"</u></td></tr> <tr><td style="border-bottom: 1px solid black;">DEPTH-TO-WATER</td><td style="border-bottom: 1px solid black;"><u>~3'-5'</u></td></tr> <tr><td style="border-bottom: 1px solid black;">TOTAL BORING DEPTH</td><td style="border-bottom: 1px solid black;"><u>1'</u></td></tr> </table>	PROJECT/SITE NAME	<u>DEC-BROOKLYN5200</u>	SITE ADDRESS	<u>Empire Electric</u>		<u>5200 First Avenue</u>		<u>Brooklyn, NY</u>	SITE ID NUMBER	<u>224015</u>	BORING I.D.	<u>SB-6</u>	PURPOSE	<u>Investigation</u>	DRILLING METHOD	<u>Hand Auger</u>	DRILLING COMPANY	<u>EAR</u>	HEAD DRILLER	<u>J. Lohan</u>	LOGGED BY	<u>J. Lohan</u>	BOREHOLE DIAMETER	<u>4"</u>	DEPTH-TO-WATER	<u>~3'-5'</u>	TOTAL BORING DEPTH	<u>1'</u>	<table style="width: 100%; border-collapse: collapse;"> <tr><td style="border-bottom: 1px solid black;">SOIL SAMPLING</td></tr> <tr><td style="border-bottom: 1px solid black;">Type <u>S/S hand auger.</u></td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;">GROUNDWATER SAMPLING</td></tr> <tr><td style="border-bottom: 1px solid black;">Type _____</td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;">BACKFILL <u>Native</u></td></tr> <tr><td style="border-bottom: 1px solid black;">FINISH <u>Match existing (no finish, in dirt)</u></td></tr> <tr><td style="border-bottom: 1px solid black;">COMMENTS _____</td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> <tr><td style="border-bottom: 1px solid black;"> </td></tr> </table>	SOIL SAMPLING	Type <u>S/S hand auger.</u>			GROUNDWATER SAMPLING	Type _____		BACKFILL <u>Native</u>	FINISH <u>Match existing (no finish, in dirt)</u>	COMMENTS _____			
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Type _____																																										
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COMMENTS _____																																										

Depth Below Grade	Soil Lithology/Field Observations				
	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
0'-1'	Brown fine sand, trace medium sand, trace coarse sand; moist, no odor	HA	0'-1'	1.3	
	Rejection at ~1' BGS (concrete slab).				

"Trace", 1 - 10%      "Some", 20 - 30%  
 "Little", 10 - 20%    "And", 30 - 50%











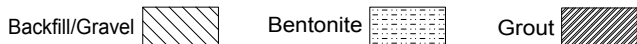




## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-Brooklyn5200</u>	CASING Type <u>PVC</u> Diameter <u>1"</u> Length <u>3'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>1"</u> Slot <u>10</u> Length <u>2'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Well Gravel (1'-3')</u>
WELL ID <u>SB-13</u>	CASING SEAL <u>Bentonite (0'-1.0')</u>
DRILLING METHOD <u>S/S Hand Auger</u>	SECURITY <u>PVC dome cap</u>
DRILLING COMPANY <u>EAR</u>	FINISH <u>NA</u>
HEAD DRILLER <u>J. Lohan</u>	COMMENTS <u>Well casing extended above grade</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>4"</u>	
SAMPLE METHOD <u>S/S Hand Auger (HA)</u>	
DEPTH-TO-WATER <u>~1.5</u>	
TOTAL WELL DEPTH <u>3'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
	 ~1.5'  TWD 3'	0'-1'	Brown fine sand, trace medium sand, trace coarse sand; moist, odor	HA	0'-1'	21.3 ppm	-
		1'-2'	Brown fine sand, trace medium sand, trace coarse sand; wet, odor	HA	1'-2'	42.6 ppm	-
		2'-3'	Brown fine sand, trace medium sand, trace coarse sand; wet, odor	HA	2'-3'	71.2 ppm	-
		Drilling Notes:					
		NOT TO SCALE					





































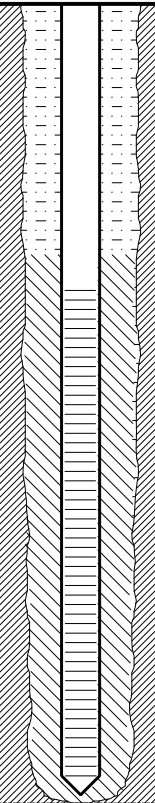
225 Atlantic Avenue  
Patchogue, NY 11772  
Office: 631.447.6400  
Fax: 631.447.6497  
Toll-Free: 1.888.EAR.6789  
E-mail: info@enviro-asmnt.com  
www.Enviro-Asmnt.com

Installation Date 09/27/17

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## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-Brooklyn5200</u>	CASING Type <u>PVC</u> Diameter <u>2"</u> Length <u>4'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Pre-Packed Screen (3'-8') Well Gravel (2.5'-3')</u>
WELL ID <u>SB-36</u>	CASING SEAL <u>Bentonite (0'-2.5')</u>
DRILLING METHOD <u>Direct Push (Geoprobe 7822DT)</u>	SECURITY <u>2" locking well cap</u>
DRILLING COMPANY <u>AARCO Environmental</u>	FINISH <u>Clean Fill</u>
HEAD DRILLER <u>A. Hutchinson</u>	COMMENTS <u>Well casing extended above grade</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>3"</u>	
SAMPLE METHOD <u>Macro Core (MC)</u>	
DEPTH-TO-WATER <u>~5.5'</u>	
TOTAL WELL DEPTH <u>8'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-4'	2.65' Tan Fine sand, trace medium sand, trace coarse sand; dry to moist, no staining, no odor.	MC	0'-4'	0.9ppm	66
		4'-8'	1.10' Tan Fine sand, trace medium sand, trace coarse sand; moist, no staining no odor. 2.20' Brown fine sand, trace medium sand, trace coarse sand; wet no staining odor.	MC	4'-8'	94.2 ppm	82
~5.5'							
TWD 8'			Drilling Notes: Refusal at ~8.5'.				
	NOT TO SCALE						

Backfill/Gravel Bentonite Grout



225 Atlantic Avenue  
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E-mail: info@enviro-asmnt.com  
www.Enviro-Asmnt.com

Installation Date 09/28/17

Page 1 of 1

## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-Brooklyn5200</u>	CASING Type <u>PVC</u> Diameter <u>2"</u> Length <u>19'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Pre-Packed Screen (19'-24') Well Gravel (17'-19')</u>
WELL ID <u>SB-37D</u>	CASING SEAL <u>Bentonite (0'-17')</u>
DRILLING METHOD <u>Direct Push (Geoprobe 7822DT)</u>	SECURITY <u>2" locking well cap</u>
DRILLING COMPANY <u>AARCO Environmental</u>	FINISH <u>Clean Fill</u>
HEAD DRILLER <u>A. Hutchinson</u>	COMMENTS <u>Well casing extended above grade</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>3"</u>	
SAMPLE METHOD <u>Macro Core (MC)</u>	
DEPTH-TO-WATER <u>5.23'</u>	
TOTAL WELL DEPTH <u>24'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations					
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery
		0'-4'	0.65' Tan fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 1.25' Brown fine sand, trace medium sand, trace coarse sand; dry, no staining, no odor. 0.40' Brown fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.40' Black fine sand, trace medium sand, trace coarse sand; moist, no staining, no odor. 0.20' Crushed concrete.	MC	0'-4'	68.4 ppm	73
		4'-8'	2.75' Brown fine sand, trace medium sand, trace coarse sand; wet, no stain, odor.	MC	4'-8'	101.9 ppm	69
		8'-12'	0.60' Brown silty fine sand, trace medium sand; wet, no staining, odor. 2.35' Brown silty fine sand, trace medium sand; wet, no staining, faint odor.	MC	8'-12'	41.1 ppm	74
5.23'							
		12'-16'	1.50' Brown/black silty fine sand, trace medium sand; wet, no staining, odor. 1.30' Brown silty fine sand, trace medium sand; wet, no staining, faint odor. 1.00' Brown fine and medium sand, some coarse sand; no staining, no odor.	MC	12'-16'	90.2 ppm	95
		16'-20'	4.00' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, no odor.	MC	16'-20'	79.2 ppm	100
		20'-24'	3.40' Brown fine and medium sand, little coarse sand; wet, no staining, faint odor.	MC	20'-24'	92.8 ppm	85
TWD 24'			Drilling Notes: NA				
		NOT TO SCALE					

Backfill/Gravel Bentonite Grout



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Installation Date 09/28/17  
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## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-Brooklyn5200</u>	CASING Type <u>PVC</u> Diameter <u>2"</u> Length <u>6'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Pre-Packed Screen (6'-11) Well Gravel (4'-6')</u>
WELL ID <u>SB-37S</u>	CASING SEAL <u>Bentonite (0'-4')</u>
DRILLING METHOD <u>Direct Push (Geoprobe 7822DT)</u>	SECURITY <u>2" locking well cap</u>
DRILLING COMPANY <u>AARCO Environmental</u>	FINISH <u>Clean Fill</u>
HEAD DRILLER <u>A. Hutchinson</u>	COMMENTS <u>Well casing extended above grade</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>3"</u>	
SAMPLE METHOD <u>Macro Core (MC)</u>	
DEPTH-TO-WATER <u>5.34'</u>	
TOTAL WELL DEPTH <u>11'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations						
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery	
			No lithology logged.					
5.34'								
TWD 11'	NOT TO SCALE		Drilling Notes: NA					

Backfill/Gravel 
     Bentonite 
     Grout



## DRILLING LOG - Monitoring Well Installation

DRILLING DETAILS	WELL CONSTRUCTION
PROJECT/SITE NAME <u>DEC-Brooklyn5200</u>	CASING Type <u>PVC</u> Diameter <u>2"</u> Length <u>6'</u>
SITE ADDRESS <u>Empire Electric Company</u> <u>5200 1st Avenue</u> <u>Brooklyn, NY</u>	SCREEN Type <u>PVC</u> Diameter <u>2"</u> Slot <u>10</u> Length <u>5'</u>
SITE ID NUMBER <u>224015</u>	GRAVEL PACK <u>Pre-Packed Screen (6'-11') Well Gravel (4.5'-6')</u>
WELL ID <u>SB-38</u>	CASING SEAL <u>Bentonite (0'-4.5')</u>
DRILLING METHOD <u>Direct Push (Geoprobe 7822DT)</u>	SECURITY <u>2" locking well cap</u>
DRILLING COMPANY <u>AARCO Environmental</u>	FINISH <u>Clean Fill</u>
HEAD DRILLER <u>A. Hutchinson</u>	COMMENTS <u>Well casing extended above grade</u>
LOGGED BY <u>J. Lohan</u>	
BOREHOLE DIAMETER <u>3"</u>	
SAMPLE METHOD <u>Macro Core (MC)</u>	
DEPTH-TO-WATER <u>7.13'</u>	
TOTAL WELL DEPTH <u>11'</u>	

Depth Below Grade	Well Design	Soil Lithology/Field Observations						
		Depth	Description/Classification	Sample Type	Screening Interval	PID Reading	Percent Recovery	
		0'-4'	1.40' Tan fine sand, trace medium sand; dry, no staining, no odor. 1.60' Brown fine sand, trace medium sand; moist, no staining, no odor.	MC	0'-4'	0.3 ppm	75	
		4'-8'	1.00' Brown fine sand, trace medium sand; moist, no staining, no odor. 1.00' Brown fine sand, trace medium sand; wet, no staining, no odor.	MC	4'-8'	0.8 ppm	67	
		8'-12'	2.40' Brown fine sand, trace medium sand; wet, no staining, no odor. 0.65' Brown fine sand, trace medium sand, little gravel; wet, no staining, no odor. 0.95' Crushed concrete.	MC	8'-12'	41.1 ppm	100	
		12'-16'	2.00' Brown fine sand, little gravel, trace medium sand; wet, no staining, no odor. 1.40' Crushed concrete. 0.60' Wood.	MC	12'-16'	0.4 ppm	100	
7.13'		16'-20'	1.95' Dark brown/gray fine sand, trace medium sand, trace concrete, trace wood; wet, no staining, no odor. 1.85' Brown fine sand, some medium sand, trace coarse sand; wet, no staining, no odor.	MC	16'-20'	7.1 ppm	96	
		20'-24'	3.60' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	20'-24'	0.9 ppm	90	
		24'-28'	3.80' Red/brown fine sand, little medium sand, trace coarse sand; wet, no staining no odor.	MC	24'-28'	3.4 ppm	96	
TWD 11'			Drilling Notes: Refusal at ~11.5' using larger diameter rods required for well installation.					
		NOT TO SCALE						

Backfill/Gravel 
   Bentonite 
   Grout



## Appendix B: Daily Field Reports

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**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Thursday, 7/6/17**

Weather: scattered showers, 70°+ F

EAR Personnel Onsite: John Lohan (geologist), Michael Ford (foreman), Edgar Lucero (technician)

Onsite Time: 0800

Offsite Time: 1530

On arrival to site met with EA rep. V. Barber and attended site orientation/tailgate safety meeting.

Sample locations were labeled sequentially as soil borings: SB-1 through SB-30. Labeled locations are illustrated in the attached map.

EAR measured out proposed sampling locations. It was determined that the proposed 3x3 meter grid would place the entire southernmost row of sampling locations (SB-21 through SB-30) well over concrete slabs. This row was thus removed from the sampling plan per V. Barber. Three additional points (SB-1, SB-10, and SB-20) were also removed from plan as these locations were inaccessible due to concrete/granite debris.

EAR completed soil sampling activities at a total of eleven locations: SB-2 through SB-9 and SB-11 through SB-13. At each sampling location, borings were advanced to three feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at each location.

At locations SB-3, SB-4, and SB-6, the crew was unable to advance tooling beyond 2-feet below grade. At these three locations, four additional attempts were made at 6-12 inches from the original borehole in each of the cardinal directions.

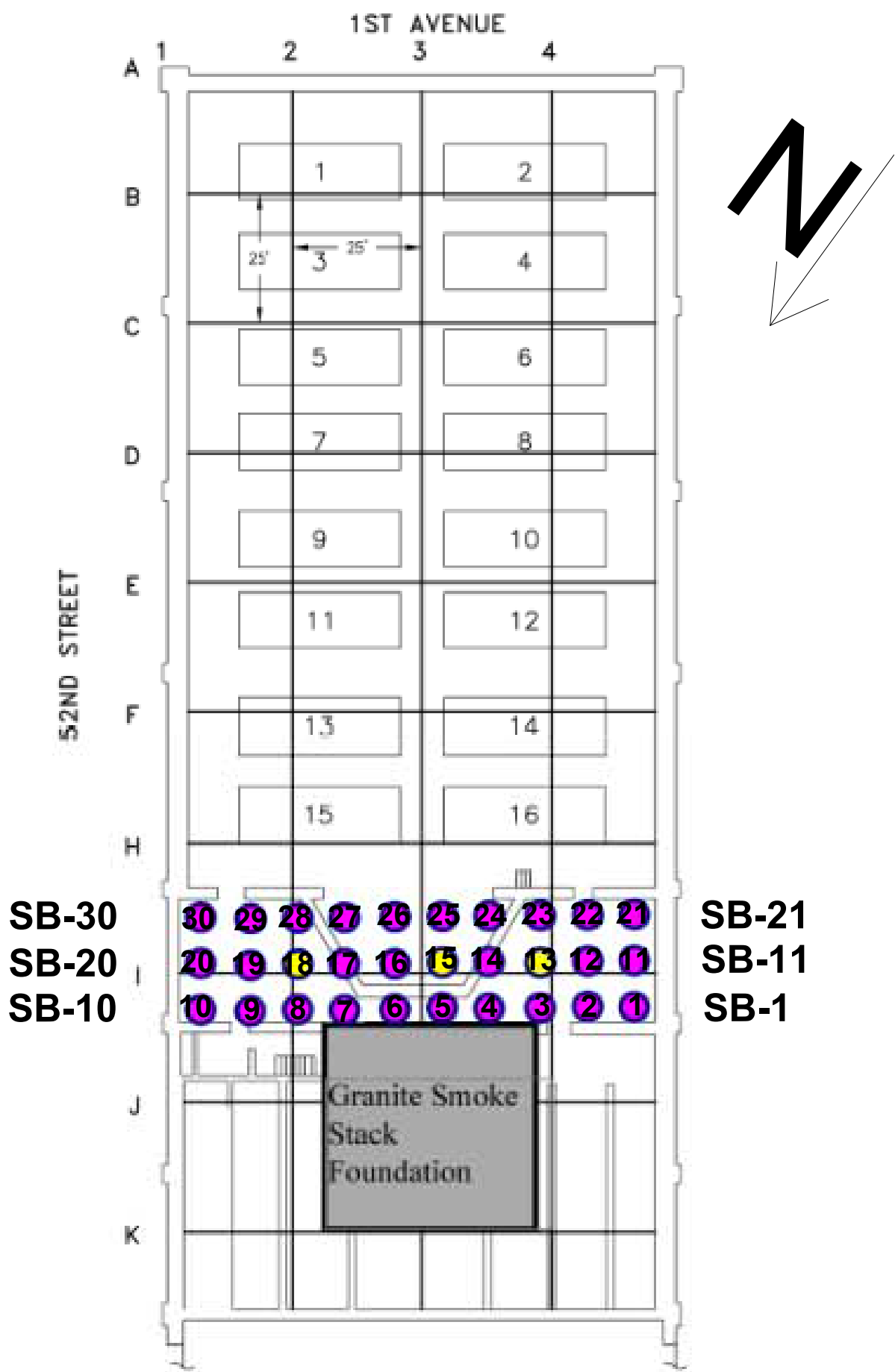
At SB-13, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to 3-feet below grade in order to collect a groundwater sample. Upon attempting to purge the temporary well, all water was stripped and location failed to recharge sufficiently while crew was onsite. Well to be allowed to recharge overnight and sampled on 7/7 or reset at deeper depth.



All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 30 soil samples (including three blind duplicates). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



## CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TESTING

Name ( for report and invoice ) <i>Ear Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 15200</i>				
Company <i>EAR</i>		P.O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:			Regulatory Program: <i>NYS DEC</i>	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:
City <i>Patchogue</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>		<i>P2B's Via 8082</i>	<i>MS/MSD</i>			Job No:
State <i>NY</i>		1 Week <input type="checkbox"/>						
Phone <i>(631) 447-6400</i>		Other <input checked="" type="checkbox"/> <i>72 Hr</i>						
Fax								
Sample Identification	Date	Time	Matrix	No. of Cont.				
<i>SB-7_0-1</i>	<i>7/6/17</i>	<i>1050</i>	<i>Soil</i>	<i>1</i>	<i>X</i>			
<i>SB-7_1-2</i>		<i>1055</i>			<i>X</i>			
<i>SB-7_2-3</i>		<i>1100</i>			<i>H</i>			
<i>SB-8_0-1</i>		<i>1103</i>			<i>X</i>			
<i>SB-8_1-2</i>		<i>1105</i>			<i>X</i>			
<i>SB-8_2-3</i>		<i>1108</i>		<i>✓</i>	<i>H</i>			
<i>SB-9_0-1</i>		<i>1145</i>		<i>3</i>	<i>X</i>	<i>X</i>		
<i>SB-9_1-2</i>		<i>1148</i>		<i>1</i>	<i>X</i>			
<i>SB-9_2-3</i>		<i>1151</i>		<i>1</i>	<i>H</i>			
<i>SB-V</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>X</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:	<i>1</i>			
6 = Other _____, 7 = Other _____				Water:				

Special Instructions *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>7/6/17 11445</i>	Received by 1) <i>[Signature]</i>	Company
Relinquished by 2)	Company	Date / Time <i>1</i>	Received by 2)	Company
Relinquished by 3)	Company	Date / Time <i>1</i>	Received by 3)	Company
Relinquished by 4)	Company	Date / Time <i>1</i>	Received by 4)	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jon Hoffman</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - BROOKLYN 5200</i>																						
Company <i>EAR</i>		P.O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYS DEC</i>				DKQP: <input type="checkbox"/>														
Address <i>225 Montic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)								LAB USE ONLY Project No:														
City <i>Patchogue</i>		State <i>NY</i>		<table border="1"> <tr> <td><i>PEBS Via 8082</i></td> <td><i>MS/MSD</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>								<i>PEBS Via 8082</i>	<i>MS/MSD</i>												Job No:	
<i>PEBS Via 8082</i>	<i>MS/MSD</i>																									
Phone <i>(631) 447-6400</i>		Fax		Sample Numbers																						
Sample Identification		Date	Time	Matrix	No. of Cont.																					
<i>SB-11_0-1</i>		<i>7/6/17</i>	<i>1151</i>	<i>Soil</i>	<i>1</i>	<i>X</i>																				
<i>SB-11_1-2</i>			<i>1155</i>			<i>X</i>																				
<i>SB-11_2-3</i>			<i>1157</i>			<i>H</i>																				
<i>SB-12_0-1</i>			<i>1201</i>			<i>X</i>																				
<i>SB-12_1-2</i>			<i>1203</i>			<i>X</i>																				
<i>SB-12_2-3</i>			<i>1205</i>			<i>H</i>																				
<i>SB-13_0-1</i>			<i>1209</i>		<i>✓</i>	<i>X</i>																				
<i>SB-13_1-2</i>			<i>1211</i>		<i>3</i>	<i>X</i>	<i>X</i>																			
<i>SB-13_2-3</i>			<i>1213</i>		<i>1</i>	<i>X</i>																				
<i>SB-2</i>		<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>1</i>	<i>X</i>																				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH					Soil: <i>1</i>																					
6 = Other _____, 7 = Other _____					Water: <i>✓</i>																					

Special Instructions *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Jon Yeh</i>	Company <i>EAR</i>	Date / Time <i>7/6/17 11445</i>	Received by <i>1)</i>	Company <i>1)</i>
Relinquished by <i>2)</i>	Company	Date / Time <i>1</i>	Received by <i>2)</i>	Company
Relinquished by <i>3)</i>	Company	Date / Time <i>1</i>	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time <i>1</i>	Received by <i>4)</i>	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ear Holdings</i>		Samplers Name ( Printed ) <i>EAR</i>			Site/Project Identification <i>DEC - Brooklyn 5200</i>																					
Company <i>EAR</i>		P. O.# <i>Site # 224015</i>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYS DEC</i> DKQP: <input type="checkbox"/>																	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>			ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)							LAB USE ONLY Project No:														
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 hr</i>			<table border="1"> <tr> <td><i>PCBs via 3282</i></td> <td><i>MSD</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>							<i>PCBs via 3282</i>	<i>MSD</i>												Job No:	
<i>PCBs via 3282</i>	<i>MSD</i>																									
Phone <i>(631) 447-6400</i> Fax		No. of Cont.										Sample Numbers														
Sample Identification		Date	Time	Matrix	No. of Cont.																					
<i>SB-2-0-1</i>		<i>7/6/17</i>	<i>953</i>	<i>soil</i>	<i>3</i>	<i>X</i>	<i>X</i>																			
<i>SB-2-1-2</i>			<i>955</i>		<i>1</i>	<i>X</i>																				
<i>SB-2-2-3</i>			<i>959</i>			<i>H</i>																				
<i>SB-3-0-1</i>			<i>1003</i>			<i>X</i>																				
<i>SB-4-0-1</i>			<i>1010</i>			<i>X</i>																				
<i>SB-5-0-1</i>			<i>1016</i>			<i>X</i>																				
<i>SB-5-1-2</i>			<i>1028</i>			<i>X</i>																				
<i>SB-5-2-3</i>			<i>1032</i>			<i>H</i>																				
<i>SB-6-0-1</i>			<i>1038</i>			<i>X</i>																				
<i>SB-X</i>		<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>X</i>																				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH					Soil:	<i>1</i>																				
6 = Other _____, 7 = Other _____					Water:	<i>✓</i>																				

**Special Instructions** *Category B volatiles requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Robert Zedler</i>	Company <i>EAR</i>	Date / Time <i>7/6/17 1445</i>	Received by <i>1)</i>	Company <i>F...</i>
Relinquished by <i>2)</i>	Company	Date / Time	Received by <i>2)</i>	Company
Relinquished by <i>3)</i>	Company	Date / Time	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time	Received by <i>4)</i>	Company

DEL - Brooklyn, NY

7/6/11

Start: 5:00 AM. End: 15:00/15:30 # 1530 End: 19:00

Purpose: Conduct soil & Gr Sampling to 3 bgs  
at proposed locations.

On Site: MF/EL/SPL (EAR, Tech/Foreman/Geo)

Vinnie Barber (EA, on site rep)

Equip: 16F150, walking wheel, PID, VSI, GR,  
generator, Camera (PCP)

Weather: ↑ TOS, S. mixed showers

### NOTES

- Travelled w/ MF/EL to/from site
  - PID zero & span calibrated prior to use
  - Went through orientation <sup>tail box</sup> safety meeting w/ on site H&S officer
  - Did quick site walk w/ V. Barber
  - Access to work zone is via secured ladders
  - After measuring out proposed sampling area, noted that there is not enough room for the proposed 3 rows of 10 points on a 3x3 meter grid, as the S most row is located over slabs of concrete. Spoke w/ V. Barber, who said to cut the (10) points. Also mentioned how some of the side points were covered by →
- 2 of 6                          39                          SPL                          2 of 6

SB-1 blazed, granite

SB-2

1-1 @ 953 \*MS, MSD \*

PID 11 ppm

Brown F sand, little M. moist, no silt

1-2 @ 955 \*Dmg' \*P-X \*

PID 2.0 ppm

Brown same c' wet

2-2 @ 977

PID 10.0 ppm

Brown same c', wet

SB-3

2-1 @ 1003

PID 2.3 ppm

Brown same; moist ✓

1-2 @ —

- attempted 4 times, rejection each time concrete

SB-4

2-1 @ 1010

PID 1.2 ppm

Bi F sand, little M, i/c, tr F gravel; moist

1-2 @ ✓

- 4 rejections, concrete/mcu

SB-5

2-1 @ 1016

PID 26

Brown same

2 of 6

40

SPL

DEC - Brown

SB-5 cont

1-2 @ 1075 B attempts

Brown same

2-3 @ 1032

Black same

PID 2.0 ppm

PID 2.5 ppm

SB

1-1 @ 1038

Brown + sully, to y, h, c; moist

1-2 @ 1038

Black, thin, hines

PID 1.3 ppm

SB-7

0-1 @ 1050

Brown same

1-2 @ 1055

Brown same

2-3 @ 1100

Brown same

PID 2.7 ppm

PID 1.4 ppm

PID 3.8 ppm

SB-8

1-1 @ 1105

Brown F sand to M; moist

1-2 @ 1105

Brown same, moist

3 of 6

PID 2.8 ppm

PID 3.8 ppm

41

JPL

SB-8 cont

2-3 @ 1105

Brown same, moist

PID 2.2 ppm

SB-9

0-1 @ 1145 \*MS/MSD\*

Brown same ↑

1-2 @ 1148 \*Dup = SB-Y\*

Brown same ↑

2-3 @ 1151

Brown same

PID 3.3

PID 1.6

PID 2.3

SB-10 - blocked by granite slab

SB-11

0-1 @ 1154

Brown same ↑

1-2 @ 1155

Brown same ↑

2-3 @ 1157

Brown same ↑

PID 6.8 ppm

PID 5.0 ppm

PID 4.1 ppm

SB-12

1-1 @ 1201 \*Dup = SB-Z\*

Brown same; wet

PID 14.6

4 of 6

42

JPL



DEC-Bicodlyn5200

10-12 cont

1-1 @ 1203 \*MS/MSD\*

Brown same, wet

2-3 @ 1205

Brown same, wet

13-13

2-1 @ 1204

Brown same, moist, fi odor

1-2 @ 1211

Brown same, wet, odor

2-3 @ 1213

Brown same, wet, odor

GWS SB-13

DTV: 1.31' bags, TWD: 3.01' bags

-Poor recharge, could not collect sample

-> was installed to 3.01' bags w/ 1' PVC gravel pack to 1' bags & bentonite 1'-70' bags.

7/6/17

PID 0.1 ppm

PID 6.1 ppm

PID 21.3 ppm

PID 42.6 ppm

PID 71.2 ppm

Notes Cont from p.39

large slabs of granite, v. Barber said to skip those points as well.

- AS discussed w/ I. Hofmann, will not spend too much time on any 1 point, due to the volume of points, if we keep hitting rejection we will move on to the next point.

- Test America Courier on site ~ 1420-1445 to pick up samples & drop off extra cooler w/ bottles & bubble bags.

- A total of 27 desiccant samples were collected w/ 3 dupes & 3 MS/MSDs

- AS discussed w/ I. Hofmann, will not collect YSI readings tomorrow, & will collect GW samples w/o purging



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Friday, 7/17**

Weather: overcast, scattered showers. Heavy rain at 10:30

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:00 (JPL), 07:30 (BCC, EL)

Offsite Time: 15:30 (JPL), 12:00 (BCC, EL)

Attended site tailgate safety meeting on arrival.

EAR completed soil sampling activities at a total of two locations: SB-15 and SB-18.

As requested by the onsite EA rep, the boring at SB-15 was advanced to 6.5 feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 5.5-6.5 feet BGS at this location. SB-18 was advanced to approximately 5.5-feet BGS using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at this location.

At SB-15, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to approximately 6-feet below grade in order to collect a groundwater sample. At SB-18, EAR advanced a 2-foot length of 1-inch diameter, 20-slot PVC screen to approximately 5-feet below grade.

Groundwater samples were collected at SB-13 (installed 7/6) and SB-15 using peristaltic pumps. Due to very poor recharge at both locations, water samples were collected without a prior purge.

Heavy rain from ~10:30-11:00 resulted in flooding of the work zone. Further sampling activities were cancelled for the day by EA. EAR personnel EL and BCC left site at 12:00. JPL remained onsite until 15:30 in order to relinquish samples to the laboratory courier.

All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.



EAR collected a total of 8 soil samples (including one blind duplicate) and 3 aqueous samples (including one rinsate blank<sup>1</sup>). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.

---

<sup>1</sup> One rinsate blank collected 7/6/17 was also submitted to the lab on 7/7/17.

DEC-Brooklyn 5200

7/7/17

Start: 5:00 on: 7:00 Lunch | 5:00-15:30 off 15:30 END 15:30

Purpose: continue soil & GW sampling

On site: BCC/EL/SPL (EAR, Tech/Foreman/GEO)

V. Barber (EA on site rep),

Equip: PpV (Rav 4), camera (PpP), PFD #18, GP, Generator

Weather, overcast, ↑ humidity, scattered light rain

Heavy rain @ ~10:25

### Notes

- V. Barber on site upon arrival
- BCC/EL on site 7:30
- Sat in for end of PAL (construction company) morning safety meeting
- PFD calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & Liquinox & rinsed w/ distilled H<sub>2</sub>O between samples
- Heavy rain ~10:25 → ~11:00, caused flooding in work zone (crew was <sup>not in</sup> evacuated from work zone during this time). As discussed w/ V. Barber & I. Hofmann no more sampling can/will be conducted today.

10 of 3

45

JRZ

SB-13

GWs @ 10

DTW: 1.48 TWD 3.01

SB-15

0-1' @ 919 \* MS/MSD \*

PFD 5:50 pm

Brown F sand, little M, little C, no gravel; wet, odor

1-2' @ 914 \* DUPE = SB-XX \*

PFD 1:42 pm

Brown same; wet, strong odor

2-3' @ 918

PFD 12:1.3 pm

Brown same; wet, strong odor

5.5'-6.5' @ 928

PFD 10:7 pm

Brown silty fine sand; wet, strong odor

GWs @ 950

DTW: 3.95 TWD: 6.33

SB-18

0-1' @ 958

PFD 1.0 pm

Brown F sand, little M, little C, gravel; moist, no odor

1-2' @ 1000

PFD 3.0 pm

Brown same; moist, no odor

2-3' @ 1000

PFD 1.2 pm

Brown F sand, little M; moist, no odor

2 of 3

46

JRZ

DEC-Brooklyn5200

7/7/17

~~7/10/17~~

Notes cont

- After majority of rain had passed (~1105) went into work zone to pack up all remaining equipment.
- After packing up EL/BCC left site @ ~1200 to return to office. JPL to remain for courier on site pick up
- Courier (T.A.) on site by 1450, off by 1505 to pick up samples

3 of 3

47

JGZ

~~DEC-Brooklyn5200~~

~~7/10/17~~

~~Start: 500 ON: 730 Lunch: 1230-1400 Off: 1400 End:~~

~~Purpose: Finish Soil & GW Sampling~~

~~ON SITE: JPL/EL/BCC (EAB, Geo/Foreman/Tech)~~

~~V. Barber (EA, on site Rep)~~

~~Equip: T&F 150, PID #18, Camera (REP), GP, Generator~~

~~Weather: 70s, Partly Cloudy~~

Notes

- Vinnie Barber on site upon arrival/departure
- PID Calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & Ignitor. Distilled H<sub>2</sub>O between samples
- After completion of sampling sample locations were marked w/ lengths of caution tape, half buried in hole, half streaming above grade. AS requested by V Barber.

1 of 5

48

JPL

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Iron Hoffmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 5200</i>					
Company <i>EAR</i>		P. O. # <i>Box # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____		Regulatory Program: <i>NYSDEC</i> DKQP: <input type="checkbox"/>			
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>							
Phone <i>(631) 447-1400</i> Fax _____									
Sample Identification	Date	Time	Matrix	No. of Cont.					
<i>SB-15-0-1</i>	<i>7/7/17</i>	<i>910</i>	<i>SOIL</i>	<i>3</i>	<i>✓</i>	<i>✓</i>			
<i>SB-15-1-2</i>	<i>↓</i>	<i>910</i>	<i>↓</i>	<i>1</i>	<i>Y</i>				
<i>SB-15-2-3</i>	<i>↓</i>	<i>928</i>	<i>↓</i>	<i>↓</i>	<i>Y</i>				
<i>SB-18-0-1</i>	<i>↓</i>	<i>958</i>	<i>↓</i>	<i>↓</i>	<i>X</i>				
<i>SB-18-1-2</i>	<i>↓</i>	<i>1000</i>	<i>↓</i>	<i>↓</i>	<i>X</i>				
<i>SB-18-2-3</i>	<i>↓</i>	<i>1010</i>	<i>↓</i>	<i>↓</i>	<i>H</i>				
<i>SB-15-5.5-6.5</i>	<i>✓</i>	<i>928</i>	<i>✓</i>	<i>✓</i>	<i>X</i>				
<i>SB-XX</i>	<i>7/7/17</i>	<i>✓</i>	<i>SOIL</i>	<i>2</i>	<i>X</i>				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <i>✓</i>	Water: <i>✓</i>				

Special Instructions *category B deliverables requested.* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Adam Yahn</i>	Company <i>EAR</i>	Date / Time <i>7/7/17 1500</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jan Hoffmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC BLOOM 5200</i>					
Company <i>EAR</i>		P.O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____		Regulatory Program: <i>NYS DEC</i> DKQP: <input type="checkbox"/>			
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>							
Phone <i>(631) 447-4400</i> Fax _____									
Sample Identification		Date	Time	Matrix	No. of Cont.				
<i>Rinse blank</i>		<i>7/17/17</i>	<i>830</i>	<i>Ag</i>	<i>4</i>	<i>X</i>			
<i>Rinse blank</i>		<i>7/17/17</i>	<i>830</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>			
<i>SB-15 GW</i>		<i>7/17/17</i>	<i>950</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>			
<i>SB-13 GW</i>		<i>7/17/17</i>	<i>1000</i>	<i>Ag</i>	<i>4</i>	<i>X</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH		Soil: <i>1</i>							
6 = Other _____, 7 = Other _____		Water: <i>1</i>							

Special Instructions *Catechy B deliverables requested*

Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John Yahn</i>	Company <i>EAR</i>	Date / Time <i>7/17/17 1500</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Monday, 7/10/17**

Weather: 70°F+, partly cloudy

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:30

Offsite Time: 14:00

EAR completed soil sampling activities at a total of eight locations: SB-14, SB-16, SB-17, SB-19, SB-31, SB-32, SB-33, and SB-34.

All of the above borings were advanced to 3-feet below grade surface (BGS) using a stainless-steel hand auger. Soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS at these locations. SB-31 through SB-34 were added to the sampling plan in the field by the onsite EA representative. Locations are illustrated in the attached map.

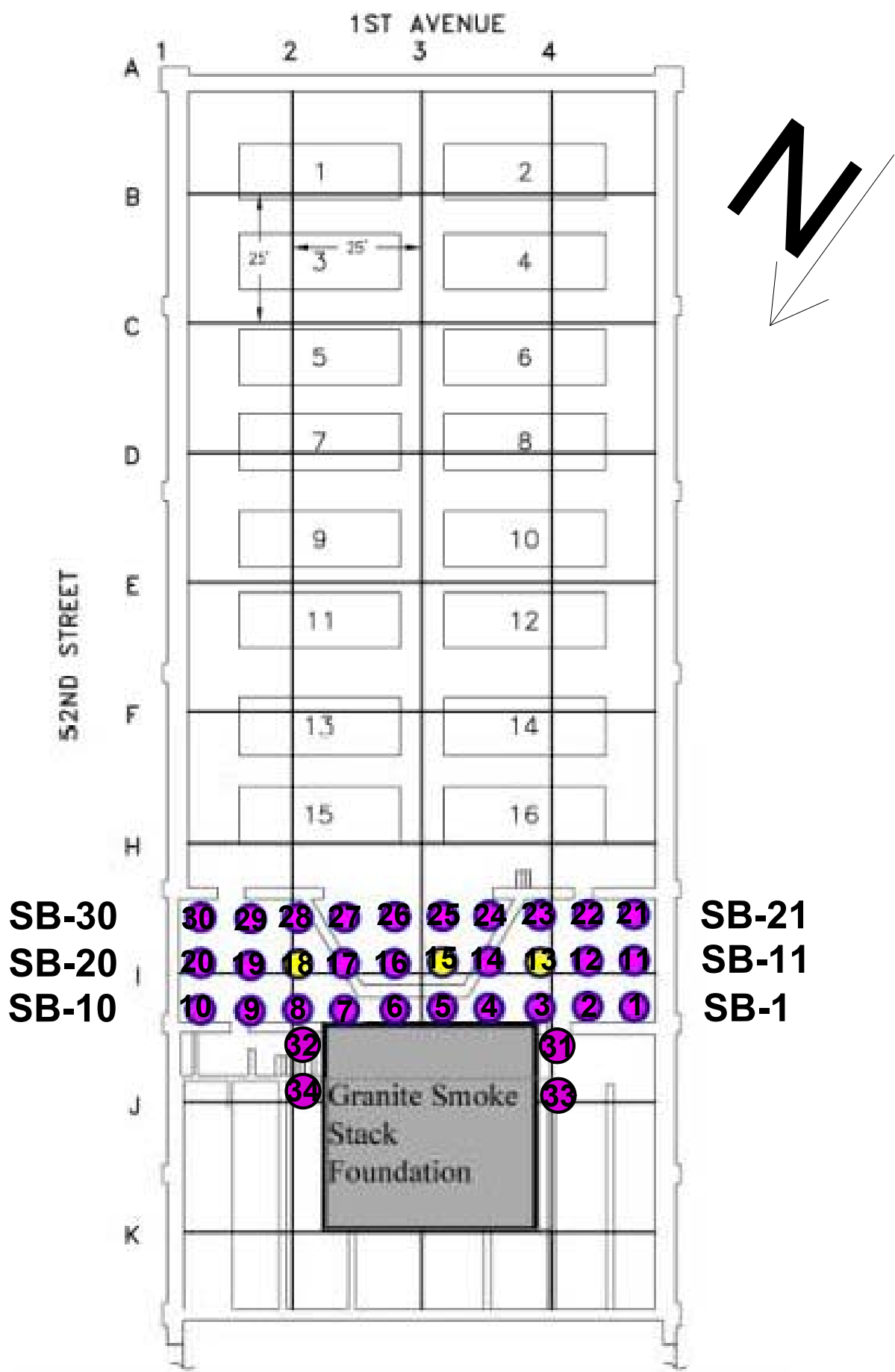
A groundwater sample was collected at SB-18 (installed 7/7) using a peristaltic pump. Due to very poor recharge, the water sample was collected without a prior purge.

All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 27 soil samples (including three blind duplicates) and 2 aqueous samples (including one rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.





SB-30  
 SB-20  
 SB-10

SB-21  
 SB-11  
 SB-1

Granite Smoke  
 Stack  
 Foundation

DEC-Brooklyn 5200

7/10/17

NOTES cont

- After majority of rain had passed (~1105) went into work zone to pack up all remaining equipment.
- After packing up EL/BCC left site @ ~1200 to return to office. SPL to remain for courier on site pick up
- Courier (T.A.) on site by 1450, off by 1505 to pick up samples

3 of 3

47

JGZ

DEC-Brooklyn 5200

7/10/17

Start: 500 ON: 730 Lunch: 1330-1400 Off: 1400 ETL

Purpose: Finish Soil & GW Sampling

ON SITE: SPL/EL/BCC (EAB, Geo/Foreman/Tech)

V. Barber (EA, on site Rep)

Equip: 16F150, PID #18, camera (REP), GP, Generator

Weather: 70's, partly cloudy

NOTES

- Vinnie Barber on site upon arrival/departure
- PID calibration checked prior to use
- Sampling equipment cleaned w/ Hexane & liquid, distilled H<sub>2</sub>O between samples
- After completion of sampling, sample locations were marked w/ lengths of caution tape, half buried in hole, half streaming above grade AS requested by V Barber.

1 of 5

48

SPL

DEC - Brooklyn 5200

7/10/17

SB-14

0-1 @ 825 MS/MSD PID 61.2 ppm

Brown F Sand, some M, HC, H gravel; moist, no odor

1-2 @ 831 Dup = SB-YY PID 9.1 ppm

Brown F Sand, HM, H gravel, moist, no odor

2-3 @ 834 PID 17.3 ppm

Brown same ↑, moist, odor

SB-15

0-1 @ 837 PID 1.2 ppm

Brown same ↑, moist, no odor

1-2 @ 840 PID 3.9 ppm

Brown same ↑, moist, no odor

2-3 @ 845 PID 1.3 ppm

Brown same ↑, moist, no odor

SB-16

0-1 @ 848 PID 62 ppm

Brown same ↑, moist, no odor

1-2 @ 851 PID 6.3 ppm

Brown same ↑, moist, no odor

2-3 @ 854 PID 7.2 ppm

Brown same ↑, moist, no odor

2 of 35

49

JPL

SB-19

0-1 @ 912 MS/MSD PID 0.3 ppm

Brown F Sand, some M, HC, H gravel; moist, no odor

1-2 @ 915 Dup = SB-ZZ PID 0.0 ppm

Brown F Sand, HM, H gravel; moist

2-3 @ 917 PID 0.3 ppm

Brown same ↑, moist, no odor

SB-31

0-1 @ 922 PID 0.6 ppm

Brown same ↑, moist, no odor

2-2 @ 924 PID 2.6 ppm

Brown same ↑, moist, no odor

2-3 @ 931 PID 0.2 ppm

Brown same ↑, moist, no odor

SB-32

0-1 @ 935 PID 3.8 ppm

Brown same ↑, moist, no odor

1-2 @ 936 PID 1.6 ppm

Brown same ↑, moist, no odor

2-3 @ 937 PID 1.9 ppm

Brown same ↑, moist, no odor

3 of 35

50

JPL

DEC-Bracklin 5200

H10117

SB-18-6W

Sample @ 950

DTW: 4.97 TWD 5.21'

SB-33

0-1 @ 1006 \* MS/MSD \* PID 1.2

Brown same ↑, moist, no odor

1-2 @ 1007 \* D.P = SB-XXX \* PID 0.5

Brown same ↑, moist, no odor

2-3 @ 1008 PID 1.3

Brown same ↑, moist, no odor

SB-34

0-1 @ 1030 PID 4.1

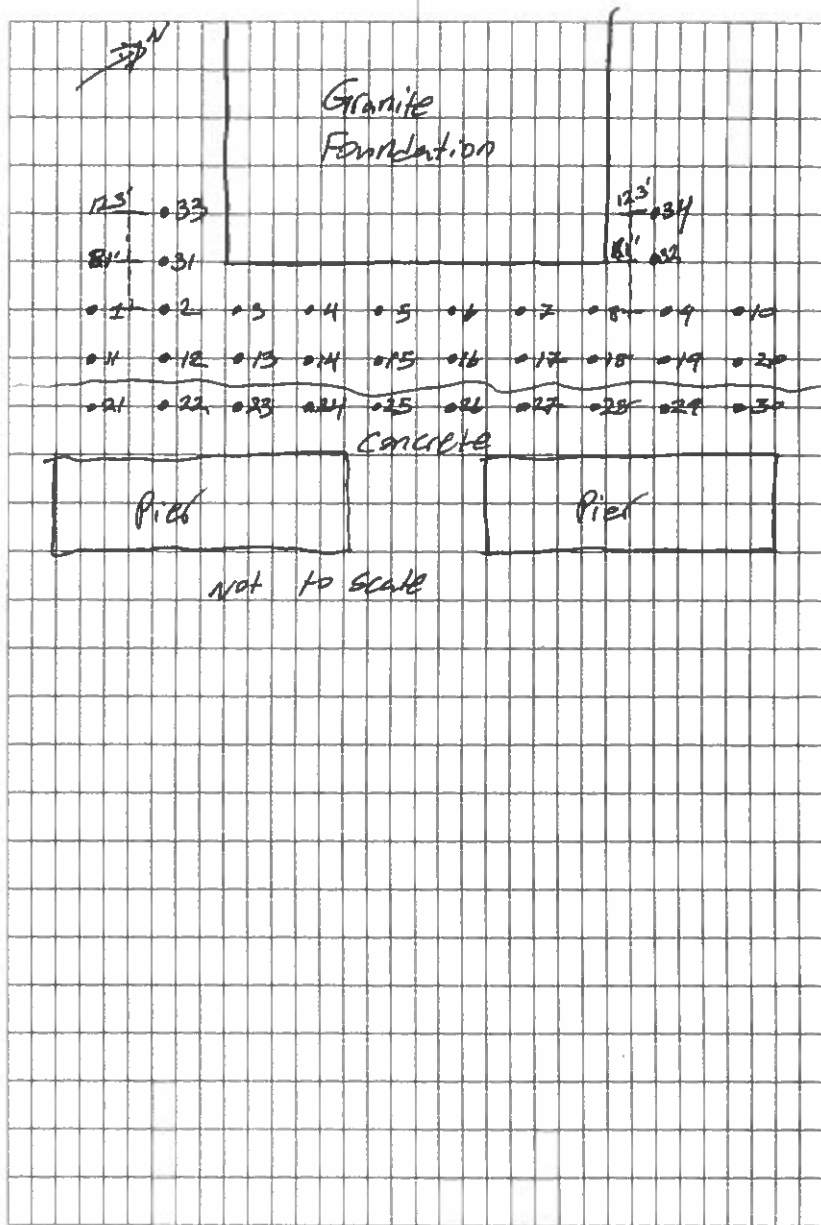
Brown same ↑, moist, no odor

1-2 @ 1033 PID 2.7

Brown same ↑, moist, no odor

2-3 @ 1036 PID 0.9

Brown same ↑, moist, no odor



## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) <i>Jan Hofmann</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>																					
Company <i>EAR</i>		P.O. # <i>Sta # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>																					
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)																					
City <i>Patchogue</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>		<table border="1"> <tr> <td><i>P/Bs Via 8082</i></td> <td><i>M.S/MSD</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>		<i>P/Bs Via 8082</i>	<i>M.S/MSD</i>																		
<i>P/Bs Via 8082</i>	<i>M.S/MSD</i>																								
State <i>NY</i>		1 Week <input type="checkbox"/>																							
Phone <i>(1-31)447-6400</i>		Other <input checked="" type="checkbox"/> <i>72 Hr</i>																							
Fax		No. of Cont.		LAB USE ONLY																					
Sample Identification		Date	Time	Matrix	No. of Cont.	Project No:																			
SB-14-0-1		<i>7/10/17</i>	<i>825</i>	<i>Soil</i>	<i>3</i>																				
SB-14-1-2			<i>831</i>		<i>1</i>																				
SB-14-2-3			<i>834</i>																						
SB-17-0-1			<i>837</i>																						
SB-17-1-2			<i>840</i>																						
SB-17-2-3			<i>845</i>		<i>H</i>																				
SB-11-0-1			<i>848</i>		<i>X</i>																				
SB-14-1-2			<i>851</i>		<i>X</i>																				
SB-16-2-3			<i>854</i>		<i>H</i>																				
SB-YY		<i>↓</i>	<i>✓</i>	<i>↓</i>	<i>↓</i>	Sample Numbers																			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:																					
6 = Other _____, 7 = Other _____				Water:																					

Special Instructions *Category B Deliverables requested*

Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Jan Hofmann</i>	Company <i>EAR</i>	Date / Time <i>7/10/17 1130</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jan Hoffmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brookl/15250</i>							
Company <i>EAR</i>		P.O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <i>MSDEC</i> DKQP: <input type="checkbox"/>					
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers			
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		<i>PLS Via 8082</i>	<i>MS/MSD</i>						
Phone <i>(631) 447-6150</i> Fax		No. of Cont.									
Sample Identification	Date	Time	Matrix			No. of Cont.					
<i>SB-19_0-1</i>	<i>7/10/17</i>	<i>912</i>	<i>Soil</i>	<i>3</i>	<i>X</i>	<i>X</i>					
<i>SB-19_1-2</i>	<i> </i>	<i>915</i>	<i> </i>	<i>1</i>	<i>X</i>						
<i>SB-19_2-3</i>	<i> </i>	<i>917</i>	<i> </i>	<i>1</i>	<i>H</i>						
<i>SB-31_0-1</i>	<i> </i>	<i>922</i>	<i> </i>	<i>1</i>	<i>X</i>						
<i>SB-31_1-2</i>	<i> </i>	<i>924</i>	<i> </i>	<i>1</i>	<i>X</i>						
<i>SB-31_2-3</i>	<i> </i>	<i>931</i>	<i> </i>	<i>1</i>	<i>H</i>						
<i>SB-32_0-1</i>	<i> </i>	<i>935</i>	<i> </i>	<i>1</i>	<i>X</i>						
<i>SB-32_1-2</i>	<i> </i>	<i>936</i>	<i> </i>	<i>1</i>	<i>X</i>						
<i>SB-32_2-3</i>	<i> </i>	<i>937</i>	<i> </i>	<i>1</i>	<i>H</i>						
<i>SB-22</i>	<i>↓</i>	<i>✓</i>	<i>✓</i>	<i>✓</i>	<i>X</i>						
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil:	<i>1</i>						
				Water:	<i>1</i>						

Special Instructions *Category B deliverables requested* Water Metals Filtered (Yes/No)?

Relinquished by <i>[Signature]</i>	Company <i>EAR</i>	Date / Time <i>7/10/17 1300</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by <i>[Signature]</i>	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company
Relinquished by	Company	Date / Time	Received by	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

THE LEADER IN ENVIRONMENTAL TESTING

Page 3 of 3

Name ( for report and invoice ) <i>Jan Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 5200</i>														
Company <i>EAR</i>		P.O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYS DEC</i> DKQP: <input type="checkbox"/>										
Address <i>225 Atlantic Ave</i>		City <i>Paterson</i>		State <i>NY</i>		Phone <i>(201) 447-6400</i>		Fax		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>								
Sample Identification		Date	Time	Matrix	No. of Cont.	ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)								LAB USE ONLY Project No:				
SB-33_0-1		<i>7/10/17</i>	<i>1006</i>	<i>Soil</i>	<i>3</i>	<i>X</i>	<i>X</i>											
SB-33_1-2			<i>1007</i>		<i>1</i>	<i>X</i>												
SB-33_2-3			<i>1008</i>			<i>H</i>												
SB-34_0-1			<i>1030</i>			<i>X</i>												
SB-34_1-2			<i>1033</i>			<i>X</i>												
SB-34_2-3			<i>1036</i>	<i>↓</i>	<i>↓</i>	<i>H</i>												
<i>Rinse blank</i>			<i>800</i>	<i>Aq</i>	<i>4</i>	<i>X</i>												
SB-18_GW		<i>↓</i>	<i>950</i>	<i>Aq</i>	<i>4</i>	<i>X</i>												
SB-XXX		<i>7/15/17</i>		<i>Soil</i>	<i>1</i>	<i>X</i>												
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____										Soil: <i>1</i>								
										Water: <i>1</i>								

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Jan Yeh</i>	Company <i>EAR</i>	Date / Time <i>7/10/17 11300</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Friday, 7/21/17**

Weather: 90°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:00

Offsite Time: 16:00

EAR completed concrete sampling activities at a total of fifteen locations: CB-1 through CB-15.

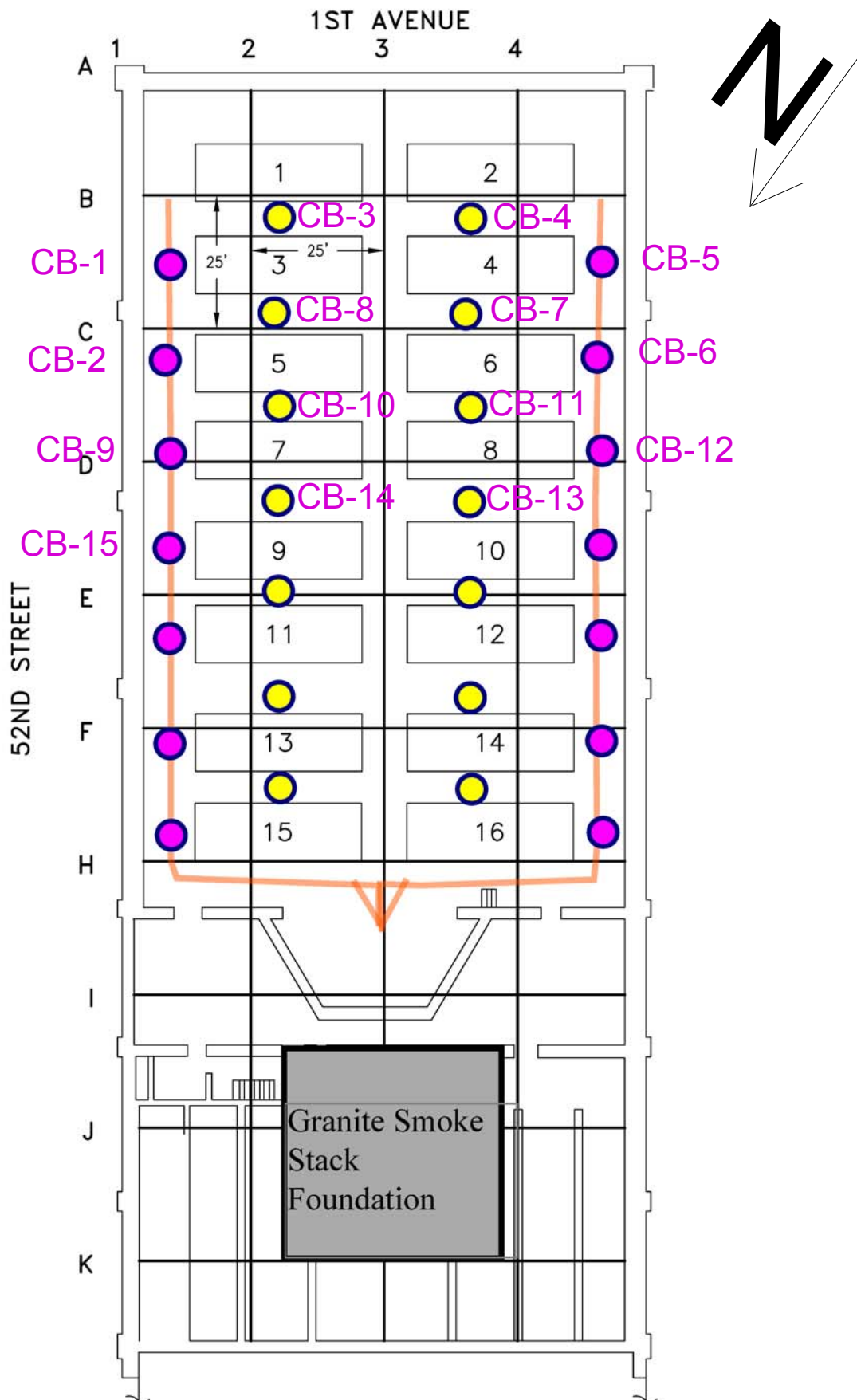
To collect the above samples, a drill with a carbide masonry bit was advanced to 6-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS and 3-6 inches BGS. Locations are illustrated in the attached map.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 33 concrete samples (including three blind duplicates) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.





DEC-Brooklyn5200 7/21/17  
 Start: 500 on: 800 Lunch: 1530-1600 off: 1600 End: 1945

Purpose: Conduct concrete sampling for analysis for PCBs  
 on site: -BCC/AD/SPL (EAR, Foreman/Tech/Enviro Tech)

Equip: 16 F150, PID #18, Generator, Hammer drill

Weather: 90's, sunny

### NOTES

- Vinnie B. on site upon arrival
- PID zero & span calibrated prior to use  
 Ambient PID readings = 0.0ppm
- concrete samples were collected using Bosch hammer drill equipped w/ a masonry drill bit. Half trays (the cooking kind) w/ hoses cut in them were used to collect the powder generated.
- All pertinent equipment (drill bit, half trays) were washed w/ Hexane, Liquinox, & distilled H<sub>2</sub>O, before start of sampling, between samples, & after completion of days sampling.
- Rinse blank collected @ 830
- Decon water deposited into PAL on site container

1 of 3

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SPL

CB-1_0-3	@ <sup>910</sup> *Dup = CB-X *	PID 0.0ppm
CB-1_3-6	@ 920	PID 0.0ppm
CB-2_0-3	@ 930	PID 0.0ppm
CB-2_3-6	@ 930	PID 0.0ppm
CB-3_0-3	@ 942	PID 0.0ppm
CB-3_3-6	@ 950	PID 0.0ppm
CB-4_0-3	@ 1001	PID 0.0ppm
CB-4_3-6	@ 1010	PID 0.0ppm
* Water break *		
CB-5_0-3	@ <sup>1045</sup> * MS/MSD *	PID 0.0ppm
CB-5_3-6	@ 1050	PID 0.0ppm
CB-6_0-3	@ 1055	PID 0.0ppm
CB-6_3-6	@ 1100	PID 0.0ppm
CB-7_0-3	@ <sup>1104</sup> * Dup = CB-Y *	PID 0.0ppm
CB-7_3-6	@ 1107	PID 0.0ppm
CB-8_0-3	@ <sup>1113</sup> * MS/MSD	PID 3.7ppm
CB-8_3-6	@ 1118	PID 0.0ppm
* Water break *		

2 of 3

64

SPL

5200  
DEC-Brooklyn ~~1717~~ 7/21/17  
CB-9\_0-3 @ 1208 \*MS/MSD\* PID 30.9 ppm  
CB-9\_3-6 @ 1214 PID 45.8 ppm

CB-10\_0-3 @ 1218 \*Dup=CB-2\* PID 0.0 ppm  
CB-10\_3-6 @ 1222 PID 0.0 ppm

CB-11\_0-3 @ 1226 PID 0.0 ppm  
CB-11\_3-6 @ 1229 PID 0.0 ppm

CB-12\_0-3 @ 1235 PID 0.0 ppm  
CB-12\_3-6 @ 1242 PID 0.0 ppm

\* water breaks \*

CB-13\_0-3 @ 1322 PID 0.0 ppm  
CB-13\_3-6 @ 1328 PID 0.0 ppm

CB-14\_0-3 @ 1333 PID 0.0 ppm  
CB-14\_3-6 @ 1338 PID 0.0 ppm

CB-15\_0-3 @ 1345 PID 0.0 ppm  
CB-15\_3-6 @ 1350 PID 0.0 ppm

### Notes cont

- Due to ↑ heat, coupled w/ poor ventilation in work zone (no breeze) frequent water breaks were taken to rehydrate/avoid heat exhaustion.

3 of 3

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JPL

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hafmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-Brookly/115200</i>					
Company <i>EAR</i>		P.O. # <i># 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <i>NYSDEC</i> DKQP: <input type="checkbox"/>			
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY	
City <i>Patchogue</i> State <i>NY</i>				<i>PCBs via 8082</i> <i>M/MSD</i>				Project No:	
Phone <i>(631) 447-1400</i> Fax								Job No:	
Sample Identification		Date	Time	Matrix	No. of Cont.			Sample Numbers	
<i>CB-1_0-3</i>		<i>7/2/17</i>	<i>910</i>	<i>Soil</i>	<i>1</i>	<i>X</i>			
<i>CB-1_3-6</i>			<i>920</i>		<i>1</i>	<i>H</i>			
<i>CB-2_0-3</i>			<i>930</i>		<i>1</i>	<i>X</i>			
<i>CB-2_3-6</i>			<i>935</i>		<i>1</i>	<i>H</i>			
<i>CB-3_0-3</i>			<i>942</i>		<i>1</i>	<i>X</i>			
<i>CB-3_3-6</i>			<i>950</i>		<i>1</i>	<i>H</i>			
<i>CB-4_0-3</i>			<i>1001</i>		<i>1</i>	<i>X</i>			
<i>CB-4_3-6</i>			<i>1010</i>		<i>1</i>	<i>H</i>			
<i>CB-5_0-3</i>			<i>1045</i>		<i>3</i>	<i>X</i>	<i>X</i>		
<i>CB-5_3-6</i>		<i>✓</i>	<i>1050</i>	<i>✓</i>	<i>1</i>	<i>H</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <i>I</i>		Water: <i>✓</i>			

Special Instructions *category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John Yeh</i>	Company <i>EAR</i>	Date / Time <i>7/2/17 1440</i>	Received by <i>1)</i>	Company
Relinquished by <i>2)</i>	Company	Date / Time <i> </i>	Received by <i>2)</i>	Company
Relinquished by <i>3)</i>	Company	Date / Time <i> </i>	Received by <i>3)</i>	Company
Relinquished by <i>4)</i>	Company	Date / Time <i> </i>	Received by <i>4)</i>	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <u>Jan Hofmann</u>		Samplers Name ( Printed ) <u>EAR</u>		Site/Project Identification <u>DEC-Brooklyn 5200</u>				
Company <u>EAR</u>		P. O. # <u>site # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____				
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers
City <u>Patchogue</u> State <u>NY</u>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <u>72 Hr</u>						
Phone <u>(609) 447-6400</u> Fax _____		Regulatory Program: <u>NYSDEC</u>						
Sample Identification	Date	Time	Matrix	No. of Cont.	PCBs via 8082	MS/MSD		
<u>CB-6-0-3</u>	<u>7/21/17</u>	<u>1055</u>	<u>Sol</u>	<u>1</u>	<u>X</u>			
<u>CB-6-3-6</u>		<u>1100</u>		<u>1</u>	<u>H</u>			
<u>CB-7-0-3</u>		<u>1104</u>		<u>1</u>	<u>X</u>			
<u>CB-7-3-6</u>		<u>1107</u>		<u>1</u>	<u>H</u>			
<u>CB-8-0-3</u>		<u>1113</u>		<u>3</u>	<u>X</u>	<u>X</u>		
<u>CB-8-3-6</u>		<u>1118</u>		<u>1</u>	<u>H</u>			
<u>CB-9-0-3</u>		<u>1208</u>		<u>3</u>	<u>X</u>			
<u>CB-9-3-6</u>		<u>1214</u>		<u>1</u>	<u>H</u>			
<u>CB-9-0-3</u>		<u>1218</u>		<u>1</u>	<u>X</u>			
<u>CB-10-3-6</u>	<u>↓</u>	<u>1222</u>	<u>↓</u>	<u>1</u>	<u>H</u>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <u>1</u>				
				Water: <u>✓</u>				

**Special Instructions** Catech / B deliverables requested

Relinquished by <u>John Yahn</u>	Company <u>EAR</u>	Date / Time <u>7/21/17 11440</u>	Received by 1) _____	Water Metals Filtered (Yes/No)?
Relinquished by 2) _____	Company	Date / Time	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time	Received by 4) _____	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jon Hoffmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-5-Sub 1 in 5200</i>					
Company <i>EAR</i>		P. O. # <i>site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <i>NY DEC</i> DKQP: <input type="checkbox"/>			
Address <i>225 Atlantic Ave.</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers	
City <i>Patchogue, NY</i> State		Rush Charges Authorized For: 2 Week <input type="checkbox"/>							
Phone <i>631-447-6400</i> Fax		1 Week <input type="checkbox"/>							
		Other <input checked="" type="checkbox"/> <i>72 Hr</i>		<i>PCBs via 8082</i>					
Sample Identification		Date	Time	Matrix	No. of Cont.				
<i>CB-11_0-3</i>		<i>7/21/17</i>	<i>1226</i>	<i>soil</i>	<i>1</i>	<i>X</i>			
<i>CB-11_3-6</i>			<i>1229</i>			<i>H</i>			
<i>CB-12_0-3</i>			<i>1235</i>			<i>X</i>			
<i>CB-12_3-6</i>			<i>1242</i>			<i>H</i>			
<i>CB-13_0-3</i>			<i>1322</i>			<i>X</i>			
<i>CB-13_3-6</i>			<i>1328</i>			<i>H</i>			
<i>CB-14_0-3</i>			<i>1333</i>			<i>X</i>			
<i>CB-14_3-6</i>			<i>1338</i>			<i>H</i>			
<i>CB-15_0-3</i>			<i>1345</i>			<i>X</i>			
<i>CB-15_3-6</i>			<i>1350</i>			<i>H</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <i>1</i>					
				Water: <i>/</i>					

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)?

Relinquished by <i>John Keh</i>	Company <i>EAR</i>	Date / Time <i>7/21/17 1440</i>	Received by 1) _____	Company
Relinquished by 2) _____	Company	Date / Time	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time	Received by 4) _____	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) <u>Jan Hofmann</u>		Samplers Name (Printed) <u>EAR</u>		Site/Project Identification <u>DEC-Brooklyn 5200</u>								
Company <u>EAR</u>		P. O. # <u>Site # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <u>NY DEC</u> DKQP: <input type="checkbox"/>						
Address <u>225 Atlantic Ave.</u>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers				
City <u>Patchogue, NY</u>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>										
Phone <u>631-447-6400</u>		1 Week <input type="checkbox"/>										
Fax		Other <input checked="" type="checkbox"/> <u>72HR</u>		PCBS VIA 8082								
Sample Identification	Date	Time	Matrix					No. of Cont.				
<u>CB-X</u>	<u>7/21/17</u>	<u>/</u>	<u>Soil</u>					<u>1</u>	<u>X</u>			
<u>CB-Y</u>	<u>↓</u>	<u>/</u>	<u>↓</u>					<u>1</u>	<u>X</u>			
<u>CB-Z</u>	<u>↓</u>	<u>/</u>	<u>↓</u>					<u>1</u>	<u>Y</u>			
<u>Rinse blank</u>	<u>↓</u>	<u>830</u>	<u>Aq</u>	<u>4</u>	<u>X</u>							
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:								
6 = Other _____, 7 = Other _____				Water:								

**Special Instructions** Category B volatiles requested Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <u>John Zehn</u>	Company <u>EAR</u>	Date / Time <u>7/21/17 1440</u>	Received by 1) _____	Company
Relinquished by 2) _____	Company	Date / Time 	Received by 2) _____	Company
Relinquished by 3) _____	Company	Date / Time 	Received by 3) _____	Company
Relinquished by 4) _____	Company	Date / Time 	Received by 4) _____	Company



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Monday, 7/24/17**

Weather: 70°F+, light rain with periods of heavy rain

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:30

Offsite Time: 14:30

Due to rain and standing water in the proposed concrete sampling area, no work was conducted within the excavation. Instead, EAR conducted groundwater sampling activities at existing monitoring wells.

EAR completed groundwater sampling activities at a total of three locations: MW-3, MW-12, and MW-14. Locations are illustrated in the attached map.

MW-13 could not be located by either EAR or the onsite contractor. Relatively new asphalt paving was observed in the area, so it is possible that this well has been paved over. The MW-10 manhole was found damaged. Upon opening this manhole, field personnel found no well casing in the manhole.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Upon opening each well, total VOC's were monitored at the wellhead using a photo-ionization detector (PID). Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

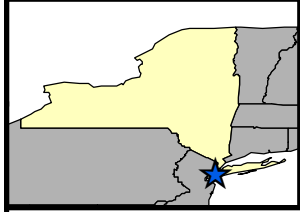
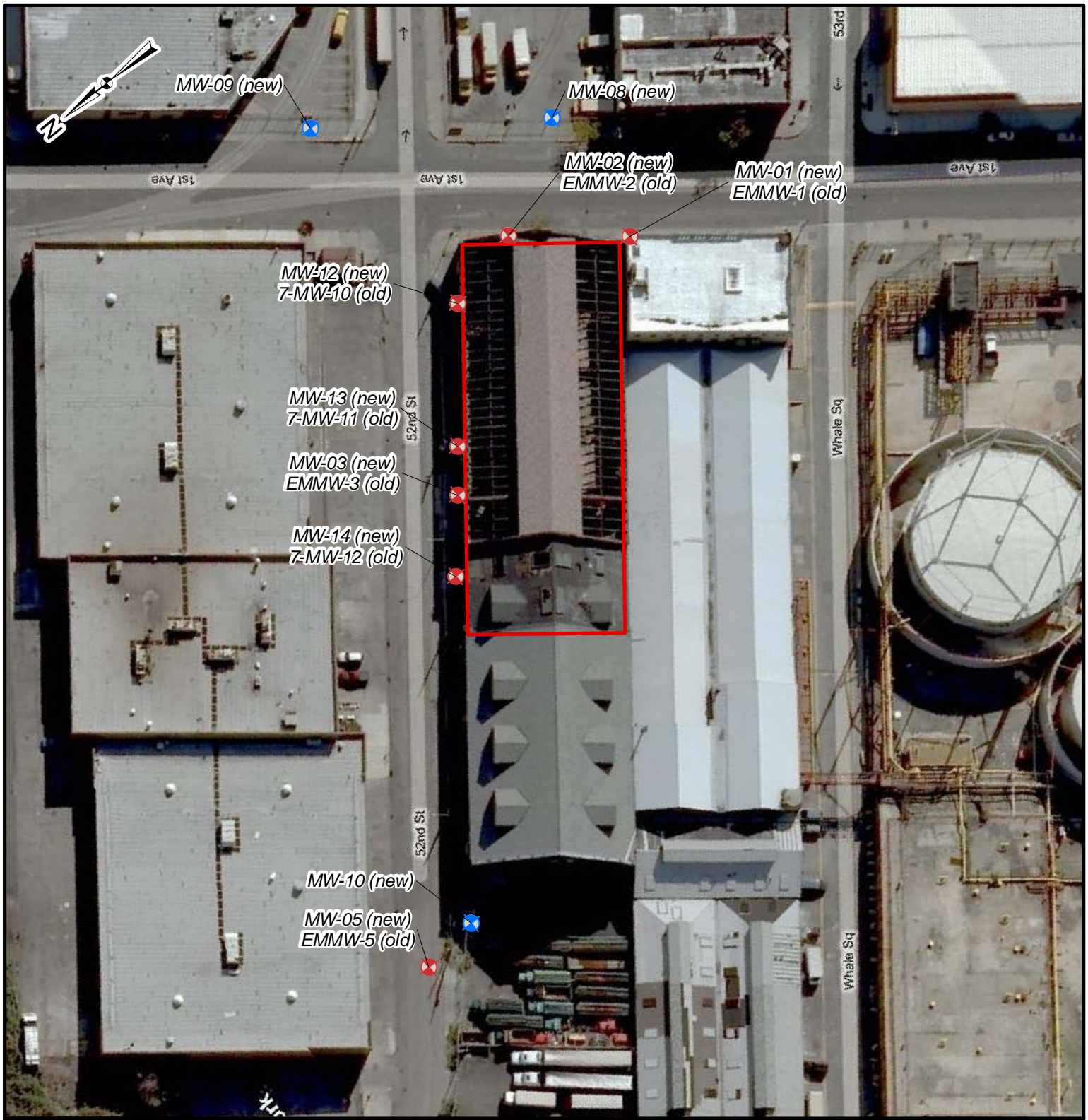
EAR collected a total of 4 aqueous samples (including one rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via





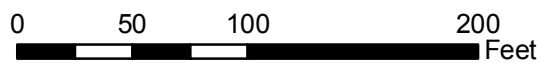
6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



**Legend**

- Building Footprint
- + Monitoring Wells Installed by EA
- + Existing Monitoring Wells



Source: Windows Live Maps  
www.bing.com/maps



**EMPIRE ELECTRIC  
WORK ASSIGNMENT  
BROOKLYN, NEW YORK**

**FIGURE 2  
GROUNDWATER SAMPLE  
LOCATIONS**

PROJECT MGR: DFC	DESIGNED BY: MJS	CREATED BY: MJS	CHECKED BY: SEF	SCALE: AS SHOWN	DATE: JULY 2009	PROJECT NO: 14474.26	FILE NO: GIS/PROJECTS/ FIGURE2.MXD
---------------------	---------------------	--------------------	--------------------	--------------------	--------------------	-------------------------	--

### Groundwater Sampling Sheet: Stabilization Purge Method

Site: DEC-Brooklyn5200  
 Date: 7/24/17  
 Techs: AD/BCC/SPL

Start Time: See W.O.      Equipment: See W.O.  
 End Time: \_\_\_\_\_

[check units on YSI and confirm that parameter is in the correct units]

WELL ID	Well Size (inches)	Total Well Depth (ft.)	Depth to Water (ft.)	Length of Column (ft.)	One Standing Water Well Volume (gal.)	Total Gallons Purged (gal.)	Time Sampled (hh:mm)	DO (mg/L)	Temp. (°C)	pH	ORP (mV)	Specific Conductance (uS/cm)	Head Space P10 (ppm) <small>NOTES</small>
MW-12	2	29.32	18.98	10.34	1.86	5.0	935	2.68	17.84	5.96	112.8	1685	0.4
MW-03	4	30.15	16.38	13.77	9.12	10.0	1205	1.31	15.19	6.72	632	1124	1.1
MW-14	4	28.86	15.81	13.05	8.65	13.5	1308	1.76	15.25	7.20	31.8	1001	0.8

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

**Purge a minimum of 1 well volume & then wait for stabilization**

Tolerance for stability:  
 Specific Conductance (3%)  
 temperature (3%)  
 pH +/- 0.1 units

Record DO & ORP but **DO NOT** use for stability

**Guidelines for Field Screening Values:**  
 pH range = 5 - 9  
 Temperature range = 10 - 19 (except for VERY warm days - please try to keep purge container cool/shaded area)  
 DO range = less than 12 (unless very close to a sparge well)

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error.  
**PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD**

5200  
7/24/17

DEC-Brooklyn ~~5200~~

CB-9_0-3	@ 1208 *MS/MSD*	PID 30.9 ppm
CB-9_3-6	@ 1211	PID 45.8 ppm
CB-10_0-3	@ 1218 *Dup = CB-2*	PID 0.0 ppm
CB-10_3-6	@ 1222	PID 8.0 ppm
CB-11_0-3	@ 1226	PID 0.0 ppm
CB-11_3-6	@ 1229	PID 2.0 ppm
CB-12_0-3	@ 1235	PID 0.0 ppm
CB-12_3-6	@ 1242	PID 0.0 ppm
* water breaks *		
CB-13_0-3	@ 1322	PID 0.0 ppm
CB-13_3-6	@ 1328	PID 0.0 ppm
CB-14_0-3	@ 1333	PID 0.0 ppm
CB-14_3-6	@ 1338	PID 0.0 ppm
CB-15_0-3	@ 1345	PID 0.0 ppm
CB-15_3-6	@ 1350	PID 0.0 ppm

Notes cont

- Due to ↑ heat, coupled w/ poor ventilation in work zone (no breeze) frequent water breaks were taken to rehydrate/avoid heat exhaustion.

3 of 3

65

JPL

7/24/17

DEC-Brooklyn 5200

Start: 515 ori: 820 Lunch: 1130-1145 off: 1130 End: 16

Purpose: Continue concrete sampling & conduct GW Sampling  
 ON SITE: JPL/BBC/AD (EAR, Enviro Sci./Foreman/Techn)  
 Vinnie Barber (EA, ON SITE REP)  
 Equip: 1x F150, PID #18, GP, Generator, Walking Wheel  
 Weather: 70's, light to heavy rain until ~1130

NOTES

- Traffic due to rain delayed on site arrival.
- Traveled to/from site w/ BBC/AD
- PID calibration checked prior to use  
Ambient PID = 0.0 ppm
- Due to rain & standing water in proposed work zone, due to said rain, concrete sampling will not be conducted today. Instead will conduct GWS & locate monitoring wells.
- See associated GWS sheet for sample times, labelings, VSI readings, etc.
- Work halted from ~1000 → ~1110 due to heavy rain & strong winds creating unsafe work conditions.

1 of 2

65

JPL

DEC - Brooklyn 5200

7/24/17

Notes cont

- In total 3 wells were sampled: MW-12, 03, & 14.
- MW-13 could not be located, P.A.L. even moved steel plates so we could check underneath.
- MW-10 is damaged & is not able to be sampled.
- All other wells were located.
- Sampling equipment was cleaned w/ Liquinox between wells.
- Purge water was disposed in on site P.A.L. drum, w/ permission.
- T.A. Courier on site ~1355 → ~1405 to pick up samples.
- PFA samples were bagged & chained separately, courier expressly informed about PFA samples.

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAK</i>			Site/Project Identification <i>DEC-Brooklyn 5200</i>											
Company <i>EAR</i>		P.O.# <i>Spill # 224015</i>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:											
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>			ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)										LAB USE ONLY	
City <i>Patchogue</i>		Rush Charges Authorized For:													Project No:	
State <i>NY</i>		2 Week <input type="checkbox"/>													Job No:	
Phone <i>(631) 447-6400</i>		1 Week <input type="checkbox"/>													Sample Numbers	
Fax		Other <input checked="" type="checkbox"/> <i>72HR</i>														
Sample Identification	Date	Time	Matrix	No. of Cont.	8260C	8270D	8082A	8081B	7470A	6020A	9012B					
<i>MW-12</i>	<i>7/24/17</i>	<i>935</i>	<i>Aq</i>	<i>12</i>	<i>4</i>	<i>6</i>	<i>1</i>	<i>1</i>								
<i>MW-03</i>	<i>↓</i>	<i>1205</i>	<i>↓</i>	<i>↓</i>	<i>4</i>	<i>6</i>	<i>1</i>	<i>1</i>								
<i>MW-14</i>	<i>↓</i>	<i>1308</i>	<i>↓</i>	<i>↓</i>	<i>4</i>	<i>6</i>	<i>1</i>	<i>1</i>								
<i>Rinse blank</i>	<i>7/24/17</i>	<i>1340</i>	<i>Aq</i>	<i>4</i>	<i>4</i>											
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH					Soil:											
6 = Other _____, 7 = Other _____					Water:		<i>2</i>	<i>1</i>	<i>4</i>	<i>4</i>	<i>5</i>					

Special Instructions *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John Yehm</i>	Company <i>EAR</i>	Date / Time <i>7/24/17 1400</i>	Received by <i>[Signature]</i>	Company <i>T.A.</i>
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <u>Ian Hofmann</u>		Samplers Name ( Printed ) <u>EAR</u>		Site/Project Identification <u>DEC- Brooklyn 5200</u>								
Company <u>EAR</u>		P.O.# <u>Spill # 224015</u>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:								
Address <u>225 Atlantic Ave</u>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)						LAB USE ONLY Project No:		
City <u>Patchogue</u> State <u>NY</u>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>										
Phone <u>(631) 447-6400</u> Fax		1 Week <input type="checkbox"/>		PFAS						Job No:		
		Other <input checked="" type="checkbox"/> <u>72 HR</u>										
Sample Identification	Date	Time	Matrix	No. of Cont.								Sample Numbers
<u>MW-12</u>	<u>7/24/17</u>	<u>935</u>	<u>Ag</u>	<u>2</u>	<u>X</u>							
<u>MW-03</u>	<u>↓</u>	<u>1203</u>	<u>↓</u>	<u>↓</u>	<u>X</u>							
<u>MW-14</u>	<u>↓</u>	<u>1308</u>	<u>↓</u>	<u>↓</u>	<u>X</u>							
<u>Rinse blank</u>	<u>7/24/17</u>	<u>1340</u>	<u>Ag</u>	<u>2</u>	<u>X</u>							
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil: <u>✓</u>								
6 = Other _____, 7 = Other _____				Water: <u>1</u>								

**Special Instructions** Category B deliverables requested Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>7/24/17 1400</u>	Received by <u>[Signature]</u>	Company <u>[Signature]</u>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

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ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

## **Empire Electric NYSDEC Site No. 224015 Daily Field Report**

**Date: Tuesday, 7/25/17**

Weather: lower 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:00

Offsite Time: 14:30

EAR completed concrete sampling activities at a total of sixteen locations: CB-16 through CB-30, and CB-9. Locations CB-29 and CB-30 were added to the sampling plan in the field by EA representative V. Barber. Location CB-9 was revisited in order to collect a sample for analysis of VOC's. Locations are illustrated in the attached map.

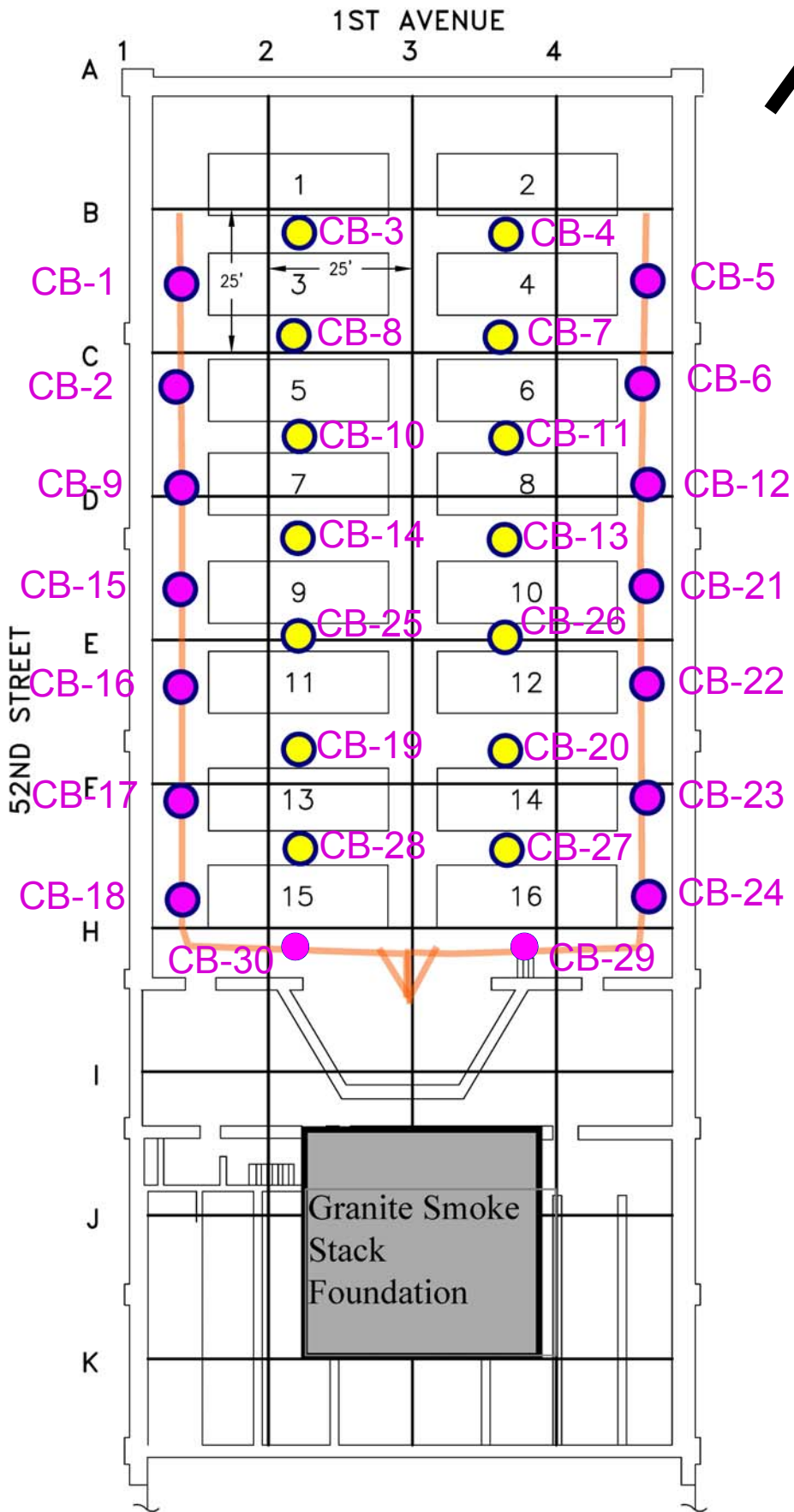
To collect the above samples, a drill with a carbide masonry bit was advanced to 6-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS and 3-6 inches BGS.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

EAR collected a total of 34 concrete samples (including three blind duplicates) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082. Due to elevated PID readings at CB-9 (3-6 inches BGS) and CB-22 (0-3 inches BGS), samples from these locations were also submitted for analysis of VOC's via EPA Method 8260. All samples were submitted for an expedited 72-hour analytical turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.





DEC-Brooklyn 5200

7/24/17

Notes cont

- In total 3 wells were sampled: MW-12, 03, & 14.
- MW-13 could not be located, P.A.L. even moved steel plates so we could check underneath.
- MW-10 is damaged & is not able to be sampled.
- All other wells were located.
- Sampling equipment was cleaned w/ Liquinox between wells.
- Purge water was disposed in on site P.A.L. drum, w/ permission.
- T.A. Council on site ~1355 → ~1405 to pick up samples.
- PFA samples were bagged & chained separately, courier expressly informed about PFA samples.

2 of 2

67

JPL

DEC-Brooklyn 5200

7/25/17

Start: 515 ed: 700 Lunch: 1400-1430 off: 1430 End: 1800

Purpose: Continue Concrete Sampling, & conduct Soil sampling.

On site: JPL/AD/BCC (EAR, Enviro Sci /  
Yvonne Barber (EA, on site rep)

Equip: 16 F150, PID # ~~19~~ Hammer drill, Generator  
↓  
19

Weather: ↓ 70s, over cast, breeze in afternoon

Notes:

- Travel to/from site w/ BCC/AD
- PID Calibration checked prior to use  
Ambient PID = 0.1 ppm
- Rinse blank collected @ 800
- V Barber on site upon arrival
- Concrete samples were collected in same as described on 7/21/17 (Pg. 65), using hammer drill, Liquinox & Hexane, & half trays
- Decon water deposited into P.A.L. on site container
- 2 locations, ~~CB-9~~ & CB-22, were selected for VOC sampling/analysis due to elevated PID readings, as per I. Hartmann

1 of 4

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JPL

DEC-Brooklyn5200

7/25/17

CB-16_0-3	@ 830	*MS/MSD*	PID	0.1ppm
CB-16_3-6	@ 835		PID	0.1ppm
CB-17_0-3	@ 839	*Dup = CB-XX*	PID	0.1ppm
CB-17_3-6	@ 845		PID	0.1ppm
CB-18_0-3	@ 851		PID	0.1ppm
CB-18_3-6	@ 858		PID	0.1ppm
CB-19_0-3	@ 901		PID	0.1ppm
CB-19_3-6	@ 908		PID	0.1ppm
CB-20_0-3	@ 911		PID	0.1ppm
CB-20_3-6	@ 915		PID	0.1ppm
CB-21_0-3	@ 922	*MS/MSD*	PID	0.1ppm
CB-21_3-6	@ 930		PID	0.1ppm
CB-22_0-3	@ 938	*Dup = CB-VV*	PID	23.7ppm
CB-22_3-6	@ 944		PID	3.4ppm
CB-23_0-3	@ 1045		PID	0.1ppm
CB-23_3-6	@ 1050		PID	0.1ppm

2 of 4

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JPL

CB-24_0-3	@ 1057		PID	0.1ppm
CB-24_3-6	@ 1102		PID	0.1ppm
CB-25_0-3	@ 1109		PID	0.1ppm
CB-25_3-6	@ 1114		PID	0.1ppm
CB-26_0-3	@ 1120	*MS/MSD*	PID	0.1ppm
CB-26_3-6	@ 1125		PID	0.1ppm
CB-27_0-3	@ 1131	*Dup = CB-ZZ*	PID	0.1ppm
CB-27_3-6	@ 1136		PID	0.1ppm
CB-28_0-3	@ 1142		PID	0.1ppm
CB-28_3-6	@ 1149		PID	0.1ppm
CB-22_0-3	@ 1208		PID	70.4ppm
- for VOCs via 8265				
CB-9_3-6	@ 1215		PID	2.3ppm
- for VOCs via 8260				
CB-29_0-3	@ 1245		PID	11.4ppm
CB-29_3-6	@ 1250		PID	2.4ppm

3 of 4

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JPL

DEC-Brooklyn 5200

7/25/17

CB-30\_0-3 @ 1257

PID 0.1ppm

CB-30\_3-6 @ 1302

PID 0.2ppm

~~CB-31\_0-3 @ ~~1257~~~~

~~PID~~

~~CB-31\_3-6 @ ~~1302~~~~

~~PID~~

- Proposed location was steel, could not drill through. AS per V. Barber point was removed.

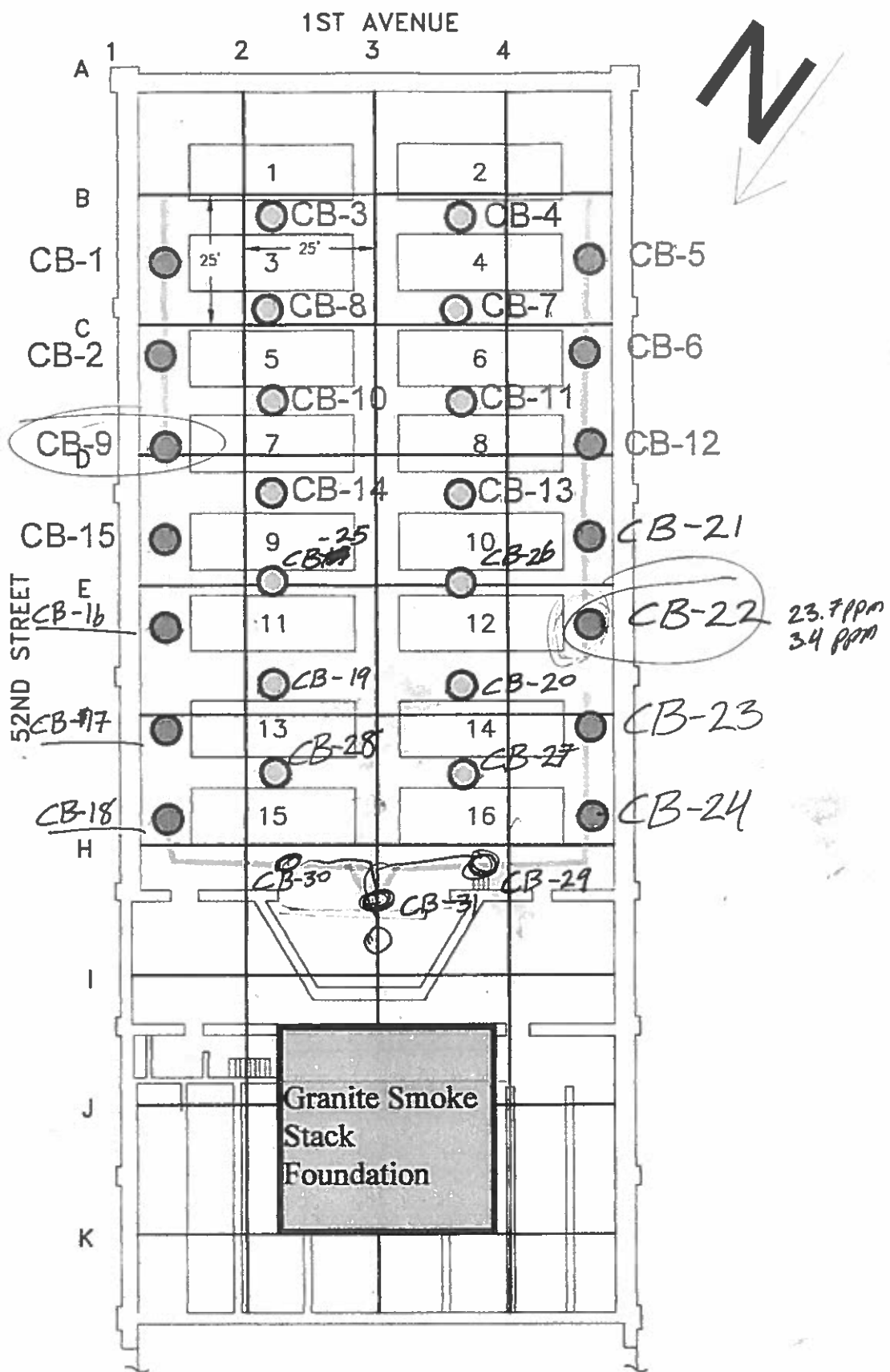
### Notes Cont

- After collecting VOC samples, 3 additional points were added by V. Barber for PCBs; CB-29, 30, & 31. CB-31 was removed from sample plan because location was steel.
- See associated map for sample locations
- Courier on site 1425 → 1430 to pick up samples.

40PH

71

SPL



## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ion Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 5200</i>				
Company <i>EAR</i>		B.O.# <i>Spill # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____				
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>		<i>PCBs via 8082</i>	<i>MS/MSD</i>			
Phone <i>(631) 447-6400</i> Fax _____		1 Week <input type="checkbox"/>						
		Other <input checked="" type="checkbox"/> <i>72 Hr</i>						
Sample Identification	Date	Time	Matrix	No. of Cont.				
<i>CB-16-0-3</i>	<i>7/25/17</i>	<i>830</i>	<i>Soil</i>	<i>3</i>	<i>X</i>	<i>X</i>		
<i>CB-16-3-6</i>		<i>835</i>		<i>1</i>	<i>H</i>			
<i>CB-17-0-3</i>		<i>839</i>			<i>X</i>			
<i>CB-17-3-6</i>		<i>845</i>			<i>H</i>			
<i>CB-18-0-3</i>		<i>851</i>			<i>X</i>			
<i>CB-18-3-6</i>		<i>858</i>			<i>H</i>			
<i>CB-20-0-3</i>		<i>911</i>			<i>X</i>			
<i>CB-20-3-6</i>		<i>915</i>			<i>H</i>			
<i>CB-19-0-3</i>		<i>904</i>			<i>X</i>			
<i>CB-19-3-6</i>	<i>✓</i>	<i>908</i>	<i>✓</i>	<i>✓</i>	<i>H</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:				
6 = Other _____, 7 = Other _____				Water:				

Special Instructions *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>7/25/17 1430</i>	Received by 1) _____	Company <i>T.A</i>
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ear Halpman</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC Brooklyn 5200</i>		
Company <i>EAR</i>		P.O.# <i>Spill # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: _____		
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)		
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For:				
Phone <i>(631) 447-6400</i> Fax _____		2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72HR</i>				
Sample Identification		Date	Time	Matrix	No. of Cont.	LAB USE ONLY Project No:  Job No:  Sample Numbers
<i>CB-21_0-3</i>		<i>7/25/17</i>	<i>922</i>	<i>soil</i>	<i>3</i>	
<i>CB-21_3-6</i>			<i>930</i>			
<i>CB-22_0-3</i>			<i>938</i>			
<i>CB-22_3-6</i>			<i>944</i>			
<i>CB-23_0-3</i>			<i>1045</i>			
<i>CB-23_3-6</i>			<i>1050</i>			
<i>CB-24_0-3</i>			<i>1057</i>			
<i>CB-24_3-6</i>			<i>1102</i>			
<i>CB-25_0-3</i>			<i>1109</i>			
<i>CB-26_3-6</i>		<i>✓</i>	<i>1114</i>	<i>✓</i>	<i>✓</i>	
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil:	<i>1</i> <i>1</i>	
				Water:	<i>✓</i>	

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John Yehn</i>	Company <i>EAR</i>	Date / Time <i>7/25/17 1430</i>	Received by <i>[Signature]</i>	Company <i>T-2</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name (for report and invoice) <i>Ian Hofmann</i>		Samplers Name (Printed) <i>EAR</i>		Site/Project Identification <i>DEC - Brookline 5200</i>								
Company <i>EAR</i>		P.O.# <i>Spill # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:								
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:				
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>		<i>PCBs via 6082</i>	<i>MS/MSD</i>				Job No:			
Phone <i>(631) 447-6400</i> Fax		1 Week <input type="checkbox"/>										
		Other <input checked="" type="checkbox"/> <i>72 Hr</i>										
Sample Identification	Date	Time	Matrix	No. of Cont.					Sample Numbers			
<i>CB-26-03</i>	<i>7/25/17</i>	<i>1120</i>	<i>Soil</i>	<i>3</i>	<i>X</i>	<i>X</i>						
<i>CB-26-3-b</i>		<i>1125</i>		<i>1</i>	<i>H</i>							
<i>CB-27-03</i>		<i>1131</i>			<i>X</i>							
<i>CB-27-3-b</i>		<i>1136</i>			<i>H</i>							
<i>CB-28-0-3</i>		<i>1142</i>			<i>X</i>							
<i>CB-28-3-b</i>		<i>1149</i>			<i>H</i>							
<i>CB-29-0-3</i>		<i>1245</i>			<i>X</i>							
<i>CB-29-3-b</i>		<i>1250</i>			<i>H</i>							
<i>CB-30-0-3</i>		<i>1257</i>			<i>X</i>							
<i>CB-30-3-b</i>	<i>✓</i>	<i>1302</i>	<i>✓</i>	<i>✓</i>	<i>H</i>							
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil:	<i>1</i>	<i>1</i>						
				Water:								

Special Instructions *Category B deliverables requested*

Relinquished by	Company	Date / Time	Received by	Company	Water Metals Filtered (Yes/No)?
<i>John Yehm</i>	<i>EAR</i>	<i>7/25/17 11430</i>	<i>1)</i>	<i>T. A.</i>	
2)			2)		
3)			3)		
4)			4)		



## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hafmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 5200</i>																																					
Company <i>EAR</i>		P.O.# <i>Site# 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <i>NYS DEC</i>																																			
Address <i>225 ATLANTIC AVE</i>		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)						LAB USE ONLY Project No:																															
City <i>Patchogue</i>		State <i>NY</i>		<table border="1"> <tr> <td><i>PCBS via 8082</i></td> <td><i>8260C</i></td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						<i>PCBS via 8082</i>	<i>8260C</i>																													Job No:	
<i>PCBS via 8082</i>	<i>8260C</i>																																								
Phone <i>(631) 447-6400</i>		Fax								Sample Numbers																															
Sample Identification	Date	Time	Matrix	No. of Cont.																																					
<i>CB-22-0-3</i>	<i>7/25/17</i>	<i>1208</i>	<i>soil</i>	<i>1</i>		<i>X</i>																																			
<i>CB-9-3-6</i>		<i>1215</i>	<i>soil</i>	<i>1</i>		<i>X</i>																																			
<i>Rinse blank</i>		<i>800</i>	<i>Ag</i>	<i>4</i>		<i>X</i>																																			
<i>CB-XX</i>		<i>/</i>	<i>soil</i>	<i>1</i>		<i>X</i>																																			
<i>CB-YY</i>		<i>/</i>	<i>/</i>	<i>1</i>		<i>X</i>																																			
<i>CB-ZZ</i>	<i>↓</i>	<i>/</i>	<i>↓</i>	<i>1</i>		<i>X</i>																																			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:	<i>1</i>	<i>6</i>																																			
6 = Other <i>Terra Core</i> , 7 = Other				Water:	<i>1</i>																																				

Special Instructions Category B deliverables requested Water Metals Filtered (Yes/No)?

Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>7/25/17 1430</i>	Received by <i>[Signature]</i>	Company
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	



## Empire Electric NYSDEC Site No. 224015 Daily Field Report

**Date: Wednesday, 7/26/17**

Weather: 70°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:15

Offsite Time: 14:30

EAR completed follow-up soil sampling activities at a total of three locations: SB-13, SB-15, and SB-19. Although originally directed to collect follow-up soil samples at SB-12, samples were collected at SB-13 as SB-12 was under standing water. Locations are illustrated in the attached map.

Per directives from the onsite EA representative, borings at the above locations were to be advanced to 4-feet below grade surface (BGS) using a stainless-steel hand auger. At SB-13 and SB-15, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, 2-3 feet BGS, and 3-4 feet BGS. At SB-19, boring could not be advanced beyond 3.5 feet BGS. At this location, soil samples were collected from 0-1 feet BGS, 1-2 feet BGS, and 2-3 feet BGS.

At each of the above locations, the interval exhibiting the highest PID reading was retained for lab analysis. EAR submitted a total of 4 soil samples (including one blind duplicate). All soil samples were preserved via EPA 5035 compliant means and submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260 at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

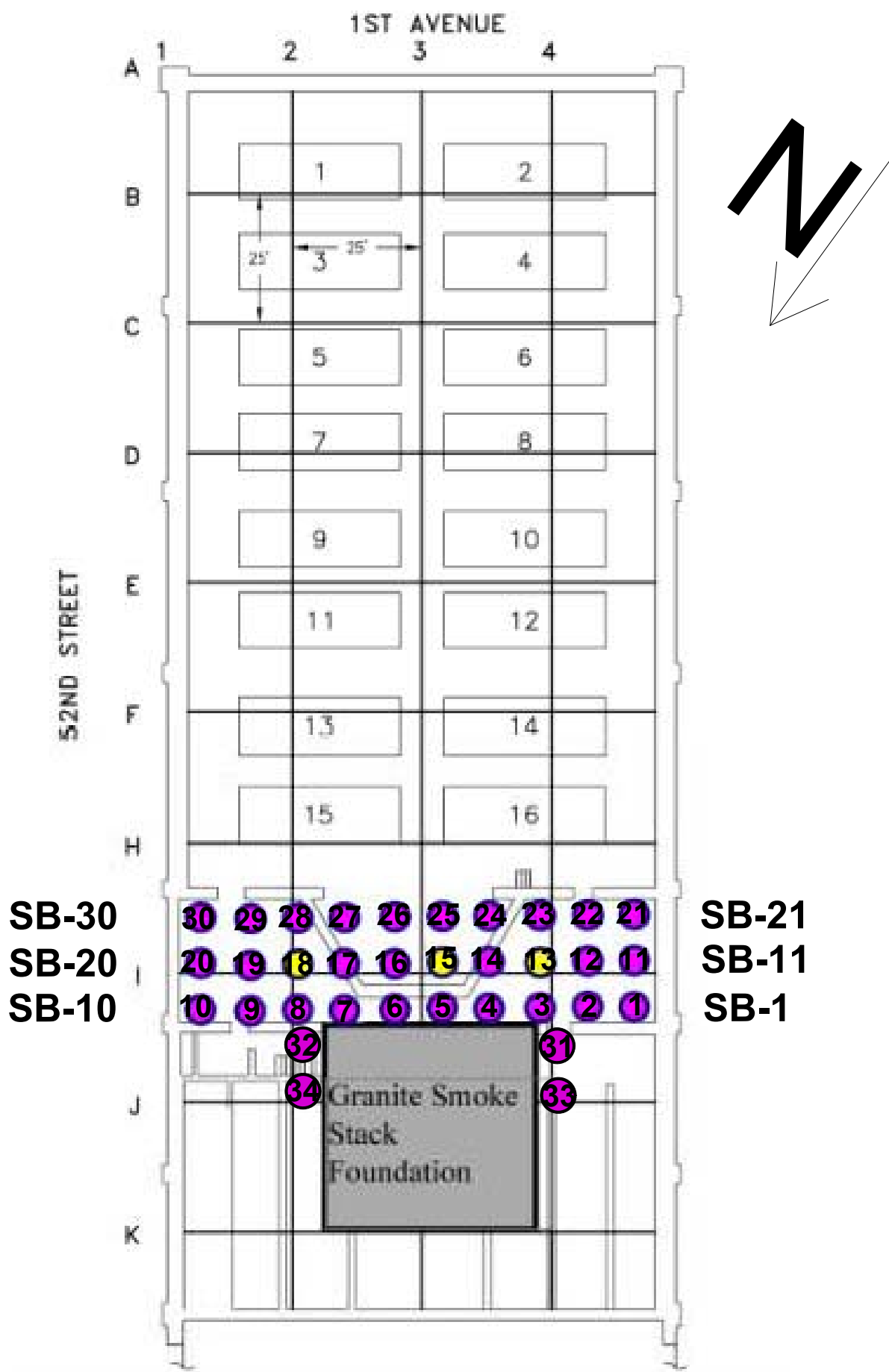
EAR collected groundwater samples at temporary wells installed at SB-13, SB-15, and SB-18 using a peristaltic pump. A new length of HDPE tubing was used at each location. Due to poor recharge at these locations, the water samples were collected following a purge of one well volume. No prior screening was conducted.

EAR collected a total of 4 aqueous samples (including one rinsate blank from soil sampling equipment). All groundwater samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.



All boring and sampling equipment contacting soil and/or groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal followed by Liquinox wash and distilled water rinse.

Geologist's field notes and chain of custody forms are attached.



~~DEC-Brooklyn 5200  
CB-30\_0-3 @ 1257  
CB-30\_3-6 @ 1302~~

~~7/25/17  
PID 0.1ppm  
PID 0.2ppm~~

~~CB-31\_0-3 @ ~~1257~~  
CB-31\_3-6 @ ~~1302~~~~

~~PID  
PID~~

~~- Proposed location was steel, could not  
drill through. As per V. Barber point was  
removed.~~

### NOTES CONT

- After collecting VOC samples, 3 additional points were added by V. Barber for PCBs; CB-29, 30, & 31. ~~CB-31~~ was removed from sample plan because location was steel.
- See associated map for sample locations
- Consider on site 1425 → 1430 to pick up samples.

4 of 4

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JPL

DEC-Brooklyn 5200

7/26/17

Start: 530 on. FEB Lunch: 1400-1430 Off: 1430 END

Purpose: Conduct soil sampling @ 3 locations.  
# GWS @ 3 previously installed temp MWS  
Onsite: SPL/BCC/AD (EAR, Enviro Sci/Foreman/TECH)  
V. Barber (EA, on site rep)  
Equip: 16 F/50, PID # 19, Generator, GP, SS hand  
auger, Post hole digger, WLM  
Weather: 70's, Sunny

### Notes:

- V. Barber on site upon arrival/departure
- PID calibration checked prior to use
  - Ambient PID = 0.0ppm
- As discussed w/ I. Hofmann, due to small size of water column in SB-13, 15, & 18, they will be purged for 1 well volume then sampled, w/o monitoring for stability.
- As discussed w/ I. Hofmann, since SB-12 is covered in standing water; preventing soil sampling, SB-13 will be used instead
- As per V. Barber, will collect a 4'-5' by sample during soil sampling where possible.

1 of 3

72

JPL

DEL-Brooklyn 5200

7/26/17

SB-19

0'-1' @ 836

PID 0.3 ppm

Brown F sand, some M, trc, tr gravel; moist, no odd

\*1'-2'\* @ 839

PID 0.3 ppm

Brown F sand, trMS, tr gravel; moist, no odd

2'-3' @ 843

PID 0.2 ppm

Brown same ↑

4'-5' @ ~~843~~

PID ~~0.2~~

Rejection 4 times @ ~3.5'

SB-15

0'-1' @ 930

PID 4.5 ppm

Brown F sand, little M, little C, tr gravel; moist, faint odd

1'-2' @ 938

PID 45.3 ppm

Brown same ↑; odd

2'-3' @ 945

PID 58.7 ppm

Brown same; odd

\*4'-5'\* @ 952

\*MS/MSD\*

PID 65.6 ppm

Brown silty F sand, tr M, tr C; wet, odd

SB-15\_GW @ 909

DTW: 3.51

TWD: 6.26

2 of

73

JPL

SB-13

0'-1' @ 1055

PID 2.8 ppm

Brown F sand, tr M; moist, no odd

1'-2' @ 1102

PID 5.3 ppm

Brown same ↑; wet

2'-3' @ 1114

PID 0.4 ppm

Brown same ↑; wet

\*4'-5'\* @ 1125 \*Dup = SB-X\*

PID 72.1 ppm

Brown same ↑; wet, odd

SB-13\_GW @ 902

DTW: ~~3.09~~ 3.09' TWD: ~~5.23~~ 3.05'

SB-18\_GW @ 916

DTW: 4.73

TWD: 5.23

Notes Cont

- Soil sampling equipment (hard auger) washed w/ liquorox & distilled H<sub>2</sub>O between samples, & fresh section of tubing <sup>+ silicone</sup> used @ each well.

- AS discussed w/ F. Hoffmann (who conferred w/ engineers) rinseate blank not needed for GW sampling

- T.A. carried on site 1427 → 1432, to pick up day's samples

3 of 3

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JPL

Sacramento

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Holman</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC - Brooklyn 15200</i>					
Company <i>EAR</i>		P.O.# <i>site # 224015</i>		State (Location of site) NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:					
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>							
Phone <i>(631) 447-6400</i> Fax		1 Week <input type="checkbox"/>		<i>PFAS</i>					
Other <input checked="" type="checkbox"/> <i>72+10</i>								Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.					
<i>SB-13_GW</i>	<i>7/26/17</i>	<i>902</i>	<i>Aq</i>	<i>2</i>	<i>X</i>				
<i>SB-15_GW</i>	<i>↓</i>	<i>909</i>	<i>↓</i>	<i>↓</i>	<i>X</i>				
<i>SB-18_GW</i>	<i>↓</i>	<i>916</i>	<i>↓</i>	<i>↓</i>	<i>X</i>				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:	<i>/</i>				
6 = Other _____, 7 = Other _____				Water:	<i>1</i>				

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Ian Holman</i>	Company <i>EAR</i>	Date / Time <i>7/26/17 11430</i>	Received by <i>[Signature]</i>	Company <i>[Signature]</i>
Relinquished by 2)	Company	Date / Time	Received by	Company
Relinquished by 3)	Company	Date / Time	Received by	Company
Relinquished by 4)	Company	Date / Time	Received by	Company

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 15200</i>									
Company <i>EAR</i>		P.O. # <i>SP11 # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYSDEC</i> DKQP: <input type="checkbox"/>					
Address <i>225 Atlantic AVE</i>		City <i>Patchogue</i>		State <i>NY</i>		ANALYSIS REQUESTED (ENTER *X BELOW TO INDICATE REQUEST)							
Phone <i>(631) 447-6400</i>		Fax		Analysis Turnaround Time Standard <input type="checkbox"/> Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72HR</i>		LAB USE ONLY							
Sample Identification		Date	Time	Matrix	No. of Cont.	<i>8260C</i>	<i>MS/MSD</i>	<i>8270D</i>	<i>8081B</i>	<i>7470A + 6020A</i>	<i>9012-B</i>	Project No:	
<i>SB-19_1-2</i>		<i>7/26/17</i>	<i>839</i>	<i>Soil</i>	<i>1</i>	<i>X</i>						Job No:	
<i>SB-15_4-5</i>		<i> </i>	<i>952</i>	<i> </i>	<i>3</i>	<i>X</i>	<i>X</i>					Sample Numbers	
<i>SB-13_4-5</i>		<i> </i>	<i>9125</i>	<i>↓</i>	<i>1</i>	<i>X</i>							
<i>SB-13-6V</i>		<i> </i>	<i>902</i>	<i>Aq</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>		
<i>SB-15-6W</i>		<i> </i>	<i>909</i>	<i>↓</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>		
<i>SB-18-6W</i>		<i>↓</i>	<i>916</i>	<i>↓</i>	<i>10</i>	<i>4</i>		<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>		
<i>Rinseblank_soil</i>		<i>7/26/17</i>	<i>800</i>	<i>Aq</i>	<i>4</i>	<i>X</i>							
<i>SB-x</i>		<i>7/26/17</i>	<i>/</i>	<i>Soil</i>	<i>1</i>	<i>X</i>							
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:									
6 = Other _____, 7 = Other _____				Water:									

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>[Signature]</i>	Company <i>EAR</i>	Date / Time <i>7/26/17 11430</i>	Received by <i>[Signature]</i>	Company
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company





**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Thursday, 7/27/17**

Weather: 70°F+, sunny in am, overcast in pm

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 07:15

Offsite Time: 14:30

EAR conducted groundwater sampling activities at a total of four locations: MW-01, MW-02, MW-08, and MW-09. EAR attempted sampling at MW-05 but was unable to advance a water level meter probe or sampling tubing beyond 7-feet below grade. When retrieved, the water level meter probe and tubing were muddy, suggesting that the well has filled with dirt/soil. Locations are illustrated in the attached map.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 5 aqueous samples (including one blind duplicate). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470, total cyanide via 9012, and PFA's via modified 537. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.



Photo 1: water level meter probe tip upon retrieval from MW-05.



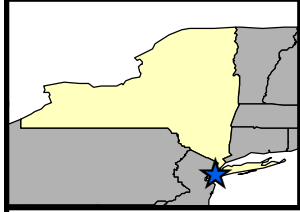
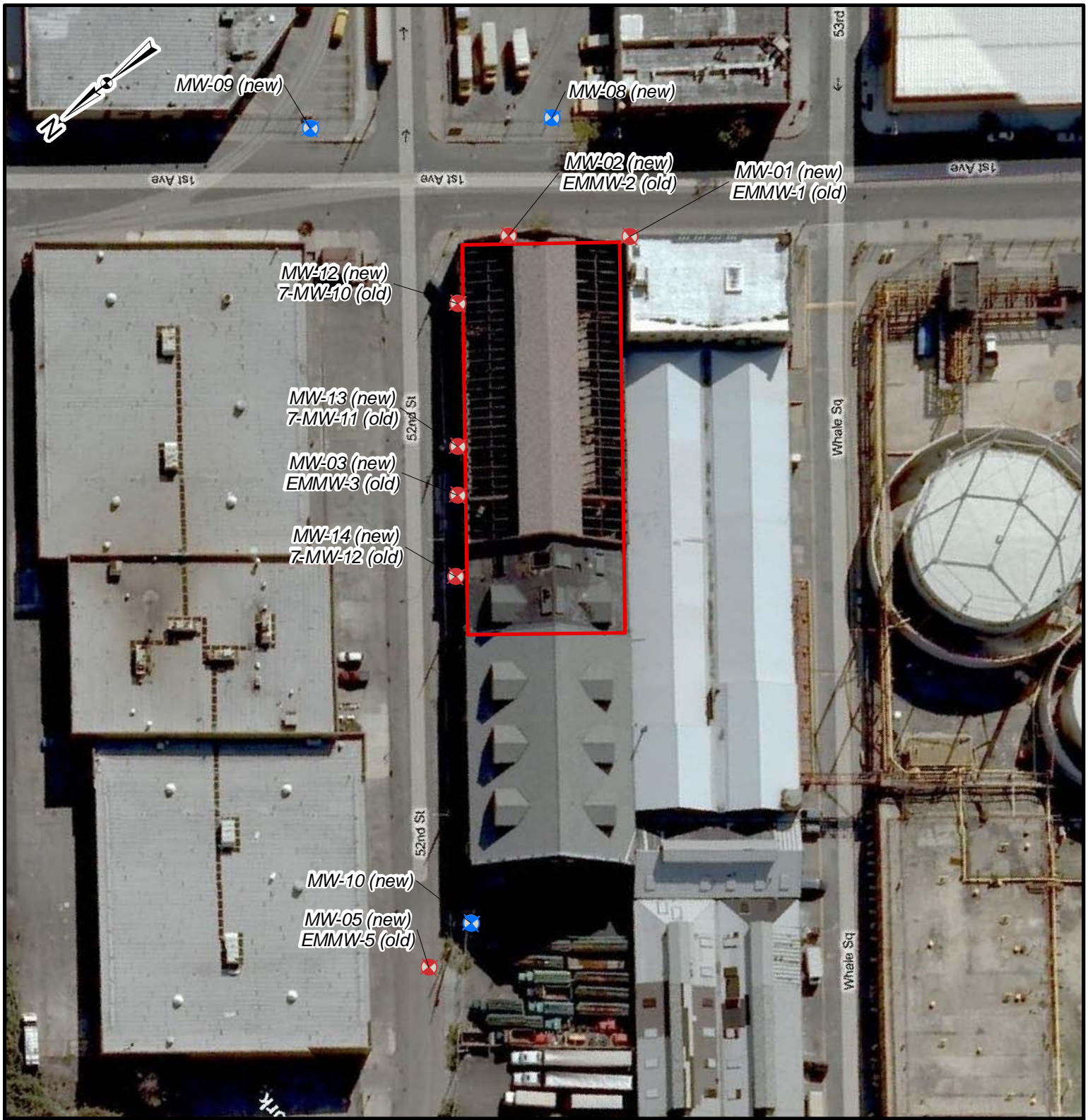
Photo 2: MW-05 well head





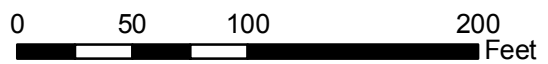
Photo 3: MW-10 well head. Casing/riser could not be found in manhole, even after exploratory digging.





**Legend**

- Building Footprint
- + Monitoring Wells Installed by EA
- + Existing Monitoring Wells



Source: Windows Live Maps  
www.bing.com/maps



**EMPIRE ELECTRIC  
WORK ASSIGNMENT  
BROOKLYN, NEW YORK**

**FIGURE 2  
GROUNDWATER SAMPLE  
LOCATIONS**

PROJECT MGR: DFC	DESIGNED BY: MJS	CREATED BY: MJS	CHECKED BY: SEF	SCALE: AS SHOWN	DATE: JULY 2009	PROJECT NO: 14474.26	FILE NO: GIS/PROJECTS/ FIGURE2.MXD
---------------------	---------------------	--------------------	--------------------	--------------------	--------------------	-------------------------	--

DEC-Brooklyn 5200

7/27/17

Start: 530 ON: 715 Lunch 1400-1430 Off: 1430 End:

Purpose: Complete GWS

On site: SPL/AD/TZP (EAR, Enviro sci/Foreman/tech)

Equip: 16 F150, GP, YSI, generator, WLM

Weather: 70's, Sunny → overcast

### NOTES:

- Travel to/from site w/ AD/TZP
- Vinnie Barber on site upon arrival/departure
- Sampling equipment (YSI) cleaned w/ Liquinox & distilled water between wells
- See associated GWS sheet for field
- \* Screening data, dup's & MS/MSD info
- MW-13 could not be located; no sampling conducted
- MW-10 is damaged; no sampling conducted
- MW-05 obstruction @ ~7' bg; no sampling conducted
- MW-03, 12, & 14 sampled on 7/24/17
- T.A. Courier on site 1405 → 1412 to pick up samples.

1 of 1

75

SPL



## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jon Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-Brookly/115200</i>																					
Company <i>EAR</i>		P.O. # <i>SP11 # 221015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:			Regulatory Program: <i>NYS DEC</i>			DKQP: <input type="checkbox"/>															
Address <i>225 ATLANTIC AVE</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)								LAB USE ONLY Project No:													
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For:																							
Phone <i>(631) 447-6400</i> Fax		2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72HR</i>		<table style="width:100%; text-align:center; border-collapse: collapse;"> <tr> <td style="width:5%;"></td> <td style="width:10%;"><i>8260C</i></td> <td style="width:10%;"><i>8270D</i></td> <td style="width:10%;"><i>8081B</i></td> <td style="width:10%;"><i>8082A</i></td> <td style="width:10%;"><i>7470A + 6020A</i></td> <td style="width:10%;"><i>9012B</i></td> <td style="width:10%;"><i>MS/MSD</i></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> <td style="width:10%;"></td> </tr> </table>											<i>8260C</i>	<i>8270D</i>	<i>8081B</i>	<i>8082A</i>	<i>7470A + 6020A</i>	<i>9012B</i>	<i>MS/MSD</i>				
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Sample Identification		Date	Time	Matrix	No. of Cont.							Sample Numbers													
<i>MW-02</i>		<i>7/27/17</i>	<i>808</i>	<i>Ag</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>														
<i>MW-01</i>		↓	<i>910</i>	↓	<i>36</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>	<i>24</i>													
<i>MW-08</i>		↓	<i>1045</i>	↓	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>														
<i>MW-09</i>		↓	<i>1200</i>	↓	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>														
<i>MW-X</i>		<i>7/27/17</i>	<i>/</i>	<i>Ag</i>	<i>12</i>	<i>4</i>	<i>2</i>	<i>2</i>	<i>2</i>	<i>1</i>	<i>1</i>														
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:		<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>	<i>/</i>														
6 = Other _____, 7 = Other _____				Water:		<i>2</i>	<i>1</i>	<i>1</i>	<i>1</i>	<i>4</i>	<i>5</i>														

### Special Instructions

*Category B deliverables requested*

Water Metals Filtered (Yes/No)?

Relinquished by <i>John Yahn</i>	Company <i>EAR</i>	Date / Time <i>7/27/17 1410</i>	Received by <i>John Yahn</i>	Company <i>EAR</i>
Relinquished by 2) <i>John Yahn</i>	Company <i>EAR</i>	Date / Time <i>7/27/17 1410</i>	Received by <i>T.A.</i>	Company <i>T.A.</i>
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Sacramento

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Jon Hatmann</i>			Samplers Name ( Printed ) <i>EAR</i>			Site/Project Identification <i>DEC - Brooklyn 5200</i>																																																																																																																															
Company <i>EAR</i>			P.O. # <i>Spill # 224015</i>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:			Regulatory Program: <i>NYSDEC</i> DKQP: <input type="checkbox"/>																																																																																																																												
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**Special Instructions**

*category B deliverables requested*

Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>Adam Zehn</i>	Company <i>EAR</i>	Date / Time <i>7/27/17 11410</i>	Received by <i>[Signature]</i>	Company <i>T.A.</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company





**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Wednesday, 8/9/17**

Weather: 60°F+, sunny

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Edgar Lucero (technician)

Onsite Time: 07:45

Offsite Time: 13:00

EAR conducted concrete sampling activities at one location: CB-10. This location had been scarified on a prior date.

To collect the above sample, a drill with a carbide masonry bit was advanced to 3-inches below the scarified surface (BGS). EAR collected a total of 1 concrete sample which was submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082.

EAR collected groundwater samples at temporary wells installed at SB-13, SB-15, and SB-18 using a peristaltic pump. A new length of HDPE tubing was used at each location. Due to poor recharge at these locations, the water samples were collected following a purge of one well volume. No prior screening was conducted.

EAR collected a total of 5 aqueous samples (including one blind duplicate and one rinsate blank from concrete sampling equipment). All groundwater samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of TAL metals via 6020/7470 (lab filtered) and PCB's via 8082 (lab filtered). All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

All groundwater sampling equipment contacting groundwater was decontaminated between each sample. Decontamination consisted of gross contaminant removal followed by Liquinox wash and distilled water rinse. All concrete sampling equipment was decontaminated prior to use via gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

Geologist's field notes and chain of custody forms are attached.

Sun-Freepost 279

8/8/17

Notes cont

- Concrete around holding tank broken/removed by 1500
- \* Tank pulled using excavator & chains by 1525. ~ 5' long
- oil staining & odor observed in soil around tank, soil to be staged w/ rest on plastic wrap w/ that from the lift
- Holding tank excavation dug down to 5.5' where soil showed no more sign of oil staining/impact
- End point sample collected from 5.5' @ 1550
- confirmed w/ Bob that no more digging will be done & that contaminated soil will be properly staged before leaving.

\* Hydraulic Lift Endpoint @ 1355 PID 897 ppm

- Black F sand, little M, HCL; w/ oil, stained odor

Holding Tank Endpoint @ 1550 PID 135

- Tan F sand, some M, HCL; moist, no stain, no odor

3 of 3

79

JPL

DEL Brooklyn 5200

8/19/17

Start: 530 on: 745 Lunch 1230-1300 Off: 1300 End:

Purpose: Collect 1 concrete sample, & 3 GW samples from temp wells  
on site: SPL/BCC/EL (EAR, Enviro Sci/Tech/Foreman)  
Vinnie Barber (EA, on site Rep)  
Equip: 16 F150, PID #19, GP, Generator, Hammer drill, WLM  
Weather: ↑ 60s, Sunny

Notes:

- Travel to/from site w/ BCC/EL
- V. Barber on site upon arrival/departure
- PID calibration checked prior to use  
Ambient PID = 0 ppm
- Concrete samples were collected using same method as described on 7/21/17 (pg. 63), using hammer drill, liquorok, hexane, & half trays
- AS DISCUSSED w/ I. Hofmann, GW points will be purged 1 well volume, then sampled w/ a YSI readings
- Fresh section of Hipe tubing used @ each GW point. WLM deconed between points

1 of 2

80

JPL

DEC-Brooklyn 5200

8/9/17

CB-10R

@ 935 \*MS/MSD\* PID 1.2ppm

0"-3"

→ SB-13\_GW @ 1000 1120

DTW 4.79

TWD 5.23

SB-15\_GW @ 1040 \*MS/MSD\* ~~SB-15\_GW=SB-X~~

DTW 3.53

TWD 6.98

SB-18\_GW @ 1120 1000

DTW 1.17

TWD 3.05

Notes cont

- T.A. Courier on site 1223 → 1228  
to pick up samples

\*

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>																					
Company <i>EAR</i>		P.O.# <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYSDEC</i> DKQP: <input type="checkbox"/>																	
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER *X: BELOW TO INDICATE REQUEST)								LAB USE ONLY													
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72HR</i>		<table border="1"> <tr> <td><i>PCBs via EPA 8082</i></td> <td><i>Filtered PCBs</i></td> <td><i>MS/MSD</i></td> <td><i>Filtered TAL</i></td> <td><i>Metals + Mercury</i></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </table>								<i>PCBs via EPA 8082</i>	<i>Filtered PCBs</i>	<i>MS/MSD</i>	<i>Filtered TAL</i>	<i>Metals + Mercury</i>								Project No:	
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Phone <i>(631) 447-6400</i> Fax		No. of Cont.										Job No:													
Sample Identification		Date	Time	Matrix	No. of Cont.										Sample Numbers										
<i>CB-10K</i>		<i>8/9/17</i>	<i>935</i>	<i>SOI</i>	<i>3</i>	<i>X</i>		<i>X</i>																	
<i>SB-18-GW</i>		<i>↓</i>	<i>1000</i>	<i>Aq</i>	<i>4</i>			<i>X</i>	<i>X</i>																
<i>SB-15-GW</i>		<i>↓</i>	<i>1040</i>	<i>↓</i>	<i>12</i>			<i>X</i>	<i>X</i>	<i>X</i>															
<i>SB-13-GW</i>		<i>↓</i>	<i>1120</i>	<i>↓</i>	<i>4</i>			<i>X</i>		<i>X</i>															
<i>Rinseblank Soil</i>		<i>8/9/17</i>	<i>900</i>	<i>Aq</i>	<i>2</i>	<i>X</i>																			
<i>SB-X</i>		<i>8/9/17</i>	<i>✓</i>	<i>Aq</i>	<i>4</i>																				
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil: <i>1</i>		Water: <i>1</i>																			
6 = Other _____, 7 = Other _____																									

Special Instructions *SB-18, 15, 18, & X need to be filtered. Category B deliverables requested* Water Metals Filtered (Yes/No)?

Relinquished by <i>John Yohn</i>	Company <i>EAR</i>	Date / Time <i>8/9/17   1230</i>	Received by <i>[Signature]</i>	Company <i>TAN YC</i>
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company

Providing Tomorrow's Solutions, Today.

225 Atlantic Avenue  
Patchogue, NY 11772  
Office: 631.447.6400  
Fax: 631.447.6497  
Toll-Free: 1.888.EAR.6789

[www.Enviro-Asmnt.com](http://www.Enviro-Asmnt.com)



ENVIRONMENTAL  
ASSESSMENT &  
REMIATIONS

**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Tuesday, 8/29/17**

Weather: 65°F+, cloudy

EAR Personnel Onsite: Bruce Campbell (skilled laborer), Edgar Lucero (skilled laborer)

Onsite Time: 07:00

Offsite Time: 10:00

EAR personnel removed broken manhole and skirt at monitoring well MW-02. An asphalt/concrete saw was used to cut an approximately 16-inch by 16-inch opening around the well such that the damaged manhole and skirt could be removed. Following removal of the damaged manhole and skirt, the well riser was cut down approximately 2-inches in order to allow room in the manhole vault for the locking well cap and keep manhole lid flush with grade.

EAR installed a new 8-inch diameter, steel, bolt-down manhole and restored the cut to grade with 5,000 psi concrete mixed onsite.

A NYCDOT sidewalk opening permit (attached) was obtained by EAR prior to beginning the work.

Photographs are attached.



Photo 1: MW-02 damaged manhole removed and well casing cut down





Photo 2: MW-02 manhole replaced and restored





**NYC Department of Transportation**

**Office of Permit Management  
PROTECTED STREET OPENING PERMIT**



PERMIT#: B01-2017236-C56

ISSUED DATE: 8/24/2017 PERMIT VALID FROM: 8/24/2017 TO: 8/31/2017  
 BOROUGH: BROOKLYN PERMIT TYPE: 0152P - SPILL RESPONSE/CLEANUP - INSTALLATIONS P  
 FEES (NON-REFUNDABLE): ROADWAY TYPE:  
 ADMINISTRATION FEE \$135.00 SIDEWALK TYPE: CONCRETE  
 TOTAL : \$135.00 FEE WAIVED/CONTRACT

CONF # B201723694

**PERMISSION HEREBY GRANTED TO:**

NAME: LONG ISLAND ENVIRONMENTAL ASSESSMENT INC. LICENSE #: None  
 CONTACT NAME: VIGLIOTTA DAVID CONTRACT #: C100611  
 PHONE: 5164476400 SPONSORING AGENCY: NYS DEPT ENVIRON CONSERVATION  
 ADDRESS: 225 - ATLANTIC AVE PATCHOGUE NY 11772

**TO OPEN THE SIDEWALK AT:**

HOUSE#: ON STREET: 1 AVENUE  
 FROM STREET: 52 STREET  
 TO STREET: 53 STREET  
 LOCATION DETAILS: Sidewalk on the North-West side of street  
 FOR PURPOSE OF: NYCDEC Contract No. C100611 - Well repair  
 RELATED AGENCY #: FOR MAX. LENGTH OF: 2 FT  
 INSPECT DIST: 33 COMM. BOARD: 07  
 RECORDED: None SEQUENCE #: 0001  
 TRACKING #: 2017082300649393

Note: If House Number is not provided Permittee shall use "Location Details" box to indicate a specific location of the work area within a block (for all non-Contract work, i.e. Contract #: None).

PERMITTEE SHALL COMPLY WITH ALL APPLICABLE LAWS, RULES AND SPECIFICATIONS OF THE NEW YORK CITY DEPARTMENT OF TRANSPORTATION AND WITH THE TERMS AND CONDITIONS OF THE PERMIT. FAILURE TO COMPLY MAY RESULT IN REVOCATION OF THE PERMIT BY THE COMMISSIONER.

TAMPERING WITH OR KNOWINGLY MAKING A FALSE ENTRY IN OR FALSELY ALTERING THIS PERMIT MAY RESULT IN A RESTRICTION IN OBTAINING FUTURE NYCDOT PERMITS.





# NYC Department of Transportation

## Office of Permit Management PROTECTED STREET OPENING PERMIT

PERMIT#: B01-2017236-C56



### NYS LAW

CALL NEW YORK 811, INC. AT 1-800-272-4480 OR 811 BEFORE STREET OPENING EXCAVATIONS. NEW YORK STATE INDUSTRIAL CODE RULE 753 MANDATES 2-10 BUSINESS DAYS NOTICE PRIOR TO DIGGING.

### PERMITTEE SHALL COMPLY WITH ALL OF THE FOLLOWING STIPULATIONS

SPECIFIC STIPULATION	
	SIDEWALK ONLY NO ROADWAY WORK, REPAIR ALL SCARRING YP 8/24/17. AL. MUST COORDINATE WITH THE ONGOING CONSTRUCTION PRIOR TO MOBILIZING.
013	MAINTAIN A MINIMUM 5 FOOT CLEAR PEDESTRIAN WALK ON THE SIDEWALK
016	FULL WIDTH OF SIDEWALK SHALL BE OPENED TO PEDESTRIANS WHEN SITE IS UNATTENDED EXCEPT FOR CONCRETE CURING WHEN THAT PORTION OF THE SIDEWALK MAY REMAIN CLOSED PROVIDED ALL OTHER STIPULATIONS ON THIS PERMIT ARE COMPLIED WITH. THIS EXCEPTION DOES NOT APPLY IF STIPULATION 014 IS ALSO APPLIED TO THIS PERMIT.
019	WORK 7AM - 6PM, MONDAY THROUGH FRIDAY
038	ALL TEMPORARY TRAFFIC CONTROL DEVICES, INCLUDING BUT NOT LIMITED TO SIGNS, CHANNELIZING DEVICES, FENCING AND MARKINGS SHALL BE PROVIDED, INSTALLED, MAINTAINED AND REMOVED BY THE PERMITTEE IN ACCORDANCE WITH THE MOST RECENT VERSION OF PART 6 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS (MUTCD). OBTAIN THE MUTCD AT <a href="http://mutcd.fhwa.dot.gov">HTTP://MUTCD.FHWA.DOT.GOV</a> .
091	THIS PERMIT ACTIVITY MAY NOT START UNTIL THE PERMITTEE COORDINATES ALL WORK WITH ANY ONGOING CONSTRUCTION AND WITH THE PROJECT/RESIDENT ENGINEER FOR ANY ONGOING CAPITAL PROJECTS.
103	PARKING OF NON-COMMERCIAL VEHICLES ON THE STREET (ROADWAY AND SIDEWALK) WITHIN WORK ZONES IS PROHIBITED.
NOISE1	BY SUBMITTING THIS APPLICATION AND/OR RENEWAL REQUEST, THE PERMITTEE CERTIFIES ITS COMPLIANCE WITH ALL APPLICABLE CITYWIDE CONSTRUCTION NOISE MITIGATION REQUIREMENTS INCLUDING, BUT NOT LIMITED TO THE DEVELOPMENT OF A COMPLIANT NOISE MITIGATION OR ALTERNATIVE NOISE MITIGATION PLAN. PLEASE CONTACT THE NYC DEPARTMENT OF ENVIRONMENTAL PROTECTION ( <a href="http://www.nyc.gov/dep">WWW.NYC.GOV/DEP</a> ) FOR FURTHER INFORMATION.
SCHOOL	NO WORK TO BE PERFORMED WITHIN BLOCK FRONTING SCHOOL INCLUDING INTERSECTIONS FOR ONE HOUR PRIOR TO SCHOOL START TIME THROUGH ONE HOUR AFTER END OF SCHOOL TIME. PERMITTEE MUST NOTIFY SCHOOL PRINCIPAL IN WRITING 48 HOURS PRIOR TO BEGINNING ANY WORK. THIS STIP VOIDS ANY/ ALL OTHER CONFLICTING STIPS ON THIS PERMIT UNLESS ACCOMPANIED WITH VARIANCE STIP VAR001.
TMC001	CONTRACTORS WHO AT ANY TIME DURING THEIR PERMITTED WORK ENCOUNTER TRAFFIC SURVEILLANCE CAMERAS, DETECTION EQUIP OR ANY TYPE OF COMMUNICATION EQUIPMENT (WIRELESS OR HARD-WIRED) ON ANY NYCDOT FACILITY, THAT IS NOT INCLUDED ON THE DESIGN/BUILD DWGS, SHALL IMMEDIATELY NOTIFY NYCDOT TRAFFIC MANAGEMENT AT <a href="mailto:TMC@DOT.NYC.GOV">TMC@DOT.NYC.GOV</a> & 718-433-3390/40 AND AWAIT DIRECTION PRIOR TO CONTINUING WORK
WAGE01	NYC ADMINISTRATIVE CODE, 19-142. WORKERS ON EXCAVATIONS: A PERSON TO WHOM A PERMIT MAY BE ISSUED, TO USE OR OPEN A STREET, SHALL BE REQUIRED, BEFORE SUCH PERMIT MAY BE ISSUED, TO AGREE THAT NONE BUT COMPETENT WORKERS, SKILLED IN THE WORK REQUIRED OF THEM, SHALL BE EMPLOYED THEREON, (CONT. ON STIP WAGE02)
WAGE02	... AND THAT THE PREVAILING SCALE OF UNION WAGES SHALL BE THE PREVAILING WAGE FOR SIMILAR TITLES AS ESTABLISHED BY THE FISCAL OFFICER PURSUANT TO SEC. TWO HUNDRED TWENTY OF THE LABOR LAW, PAID TO THOSE SO EMPLOYED.



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Wednesday, 9/20/17**

Weather: 70's (F), overcast, gusty

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 08:15

Offsite Time: 14:15

EAR and Aarco were onsite to install monitoring wells to replace MW-10 and MW-13. Prior to EAR's arrival onsite, EA had located the MW-10 casing sunken approximately 6-inches below grade. EAR gauged the well and noted a total well depth matching that recorded on drilling log for MW-10.

EAR/Aarco moved to begin installation of the MW-13. After hitting refusal at first location at approximately 4.5 feet below grade, rig was relocated for second attempt. When hand digging to clear the location, MW-13 was located.

Onsite NYSDEC representative Charlie Post directed EAR/Aarco to install new manholes and concrete pads at MW-10 & MW-13 and re-develop the wells. As well development activities were not schedule for 9/20, no turbidimeter was available. NYSDEC directed EAR/Aarco to develop the wells, to the extent feasible, until purge waters were visibly clear.

MW-10 and MW-13 were developed via pumping using inertia method. MW-13 was purged of approximately 20 gallons (12.5 well volumes). MW-10 was purged of approximately 10 gallons (5.5 well volumes). Purge water generated was co-mingled with PAL's aqueous wastes.

At each location, EAR/Aarco installed 8-inch diameter steel, bolt-down manholes set in 12-inch by 12-inch concrete pads.

Geologist's field notes are attached.



# AARCO Environmental Services Corp.

## DAILY JOB REPORT

Customer: EXR Date: 9/20/17 Weather: Overcast

Job Location: 5200 First Ave Job #: 15-235223 Day of Week: wednesday

**Description of Work:**

Setup Rig Drill to 4 1/2 ft - 2 ~~SPUT~~ Full SPUT SPOONS taken  
Hand clear to 4 1/2 ft ~~REFUSAL~~  
Develop 2 - 2" wells 1hr 15 Time Developing  
Replace 2 mandrels w/ Pads

MW 13 + MW 10 ~~more~~ more located previously Assumed WST/Albany

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Start Time: 5:00 AM Leave Shop: 5:30 AM

Arrive on Job Site: 8:30 AM Leave Job Site (1): 1:30 PM Total Hrs On-Site: \_\_\_\_\_

Arrive at Shop: \_\_\_\_\_ Clock Out Time: \_\_\_\_\_ Total Hrs for Day: \_\_\_\_\_

Overtime approved by: \_\_\_\_\_ )

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Tim Kelly</u>	<u>Yes</u>	_____
<u>Scott Decker</u>	<u>Yes</u>	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:	Material Used:
<u>BK81</u>	<u>4 Bags Concrete</u>
<u>D474</u>	<u>2 Mandrels</u>
_____	<u>1 J Plug - 2"</u>
_____	_____
_____	_____
_____	_____

Aarco Signature: X [Signature]

Client Signature: X [Signature]

DEC-Island Park 3880

8/18/17

Start: 7:00 ON: 8:45 LUNCH:

OFF: 10:45 / END: ~~11:00~~

Purpose: Continue O+D of well abandonment

On site: JPL/DG/AD/EL

Equip: ObF 250, Camera

Weather: 48-65 / 70s overcast, rain

Notes:

- Travel to ~~the~~ site w/ AD & off site w/ DG
- DG/EL on site ~ 8:50
- MW-6 well removed pad broken, & pad restored w/ concrete by ~ 9:40
- MW-5 well removed pad broken & restored w/ concrete by ~ 10:00
- Heavy rain ~ 10:00 - 11:15
- drying concrete pads were covered w/ plastic held down w/ cones to prevent water damage.
- DG spoke w/ SL (EAR, PM) & agreed, decided to end site activities for the day
- AD/EL off site in P550 @ 10:49 to dispose of accumulated debris.

I of 1

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JPL

DEC-Brooklyn 5200

9/20/17

Start: 5:00 on: 8:15 Lunch 13:45-14:15 off 14:15 End 17:30

Purpose: O+D well installation to 24' bgs, conduct

on site: JPL (EAR, Geo) T.M. Kelly / Scott D  
(AARCO, Henril / assist)

Equip: 16 Transit, WLM, walking wheel, camera (P&P)

Weather: 70s, overcast, gusty

Notes

- Heavy traffic on 495 expressway delayed on site arrival time
- AARCO on site upon arrival, arrived ~ 5 min before myself
- Vinnie had located the original MW-10 before our arrival, it was sunken ~ 6" below grade & buried w/ dirt. 2" dia, DTW: 13.38 TWD: 23.92
- AS per I. Hofmann & Vinny will redrill existing well & restore pad rather than install new well.
- Charley, (DEC, PM) on site ~ 10:00 -> ~ 11:15

I of 3

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JPL

DEC-Brooklyn 5200

9/20/17

MW-13R

0-2 @ 956

PID 4.1ppm

0.6 / 2

0.25 Brown F sand, trM, moist, no SP

0.35 Gray M sand, some F, trC, tr asphalt, dry, no SP

2-4 @ 1001

PID: 4.2ppm

0.6 / 2

0.30 Gray same 0

0.20 Brown F sand, some M, dry

0.10 Gray M sand, some F, trC, tr asphalt, dry

4-6 @ —

PID ✓

- Hit rejection @ ~ 4.5' bgs, moved boring ~ 8' closer to 1<sup>st</sup> Ave

- While prepping new location for Post boring

AARCO found the old MW-13 2" dia, DTW: 17.02,

TWD: 26.07. 1 well volume = ~ 1.58 gal. Purged ~ 20

gal by ~ 1140, by hand using check valve

- AS Stated by Charley (DEC Rep on site)

development of MW-13 & MW-10 can be done

w/o the use of a turbidimeter or YSI

for field screening, & that ~~since it~~ these it is

acceptable if these pre-existing wells can't be

made as clear as we'd like since the slot size of the screens are in question.

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JPL

Notes Cont

MW-13 development

Dia: 2" TWD: 26.07 DTW: 17.02'

Water Column: 9.05' 1 well volume: ~ 1.58 gal

- Water started as deep brown color w/ ↑ sediment content. Started to clear up a little then Δ in color plateaued after ~ 8gal, a light brown color w/ some sediment.

- After purging ~ 20 gal (~ 12.5 well volumes) there had been no notable Δ in color since the 8gal mark, development finished. @ by ~ 1140

- MW-13 restored w/ bolt down manhole, 12" skirt, set in 12" x 12" concrete pad by 1215

MW-10 development

Dia: 2" TWD: 23.92' DTW: 13.38'

Water Column: 10.54' 1 well volume: 1.84 gal

- Water started as solid black, but quickly cleared up, becoming transparent w/ only a few flakes of sediment.

- After purging 10 gal (~ 5.5 well volumes) well considered developed @ 1245

- MW-10 restored w/ bolt down, steel, manhole w/ 12" skirt, set in 12" x 12" concrete pad

- AARCO off site by 1230

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JPL



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Thursday, 9/21/17**

Weather: 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Bruce Campbell (foreman), Blake Campbell (technician)

Onsite Time: 07:00

Offsite Time: 12:00

EAR completed concrete sampling activities at a total of six post-scarification locations: CB-20, CB-22, CB-23, CB-24, CB-29, CB-30. Locations are illustrated in the attached map.

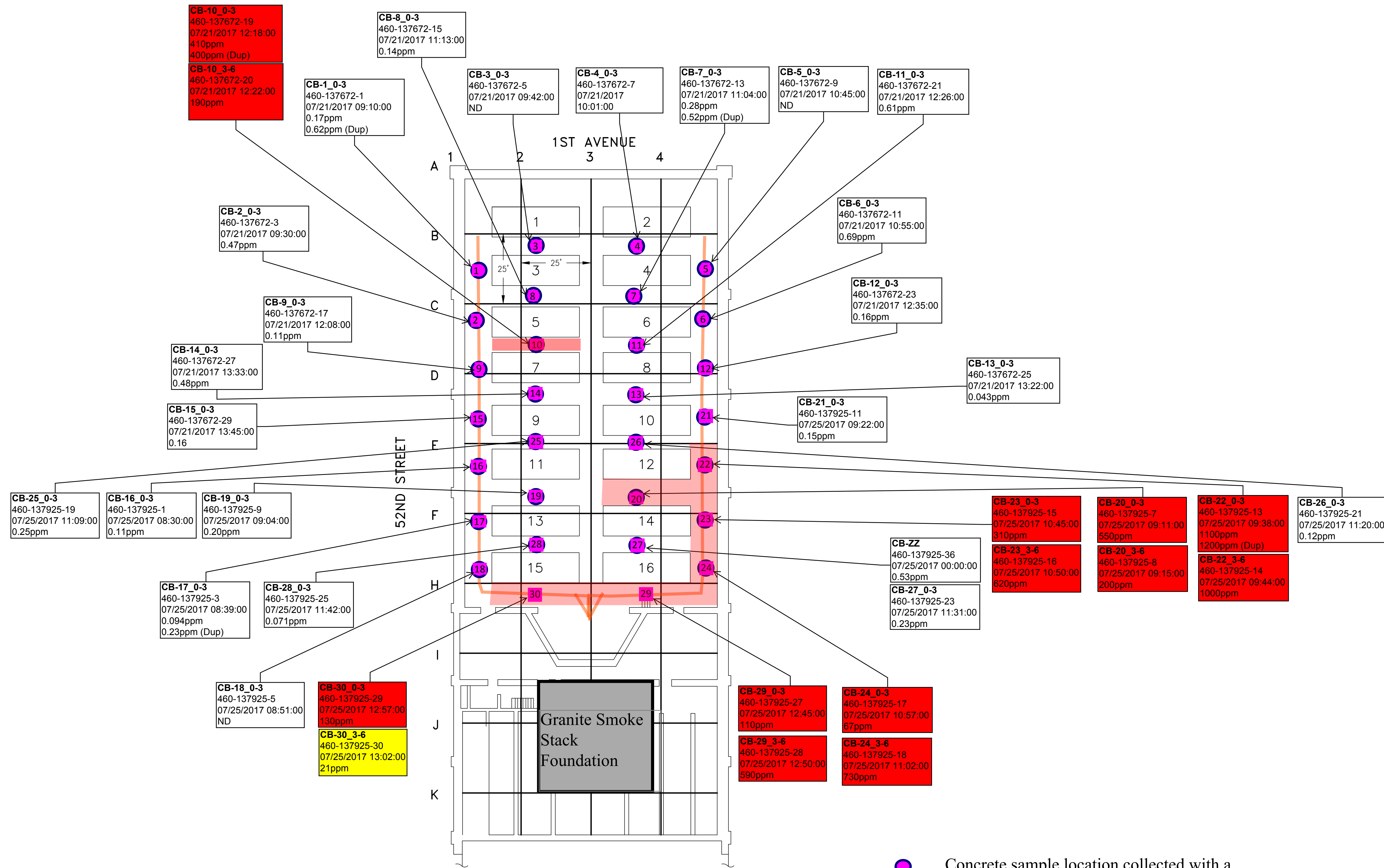
To collect the above samples, a drill with a carbide masonry bit was advanced to 3-inches below grade surface (BGS). At all locations, concrete samples (pulverized concrete drill spoils) were collected from 0-3 inches BGS.

All boring and sampling equipment was decontaminated between each sample. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

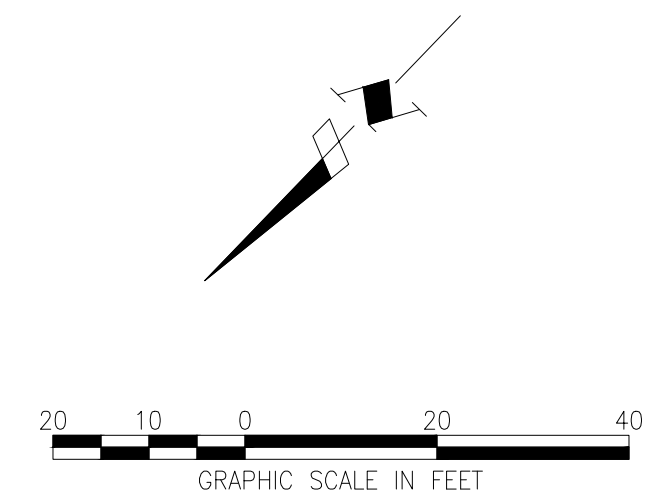
EAR collected a total of 7 concrete samples (including one blind duplicate) and 1 aqueous sample (rinsate blank). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of PCB's via EPA Method 8082. All samples were submitted for an expedited 24-hour analytical turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.

FILE PATH: F:\STATE & LOCAL GOVERNMENT\BUREAU ELECTRIC COMPANY\14490706\PROJECTS\2013\PCB REMEDIATION CONFIRMATION SAMPLING\FIGURE 11.MXD, JASON, 3/27/2017 11:52 AM



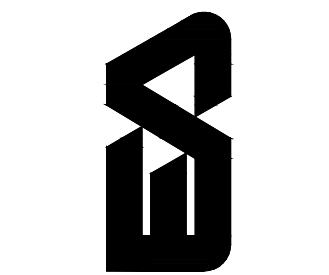
- Concrete sample location collected with a hammer drill to the depth specified by the NYSDEC on site representative. Samples were collected on a 3-ft interval.
- PCBs <1mg/kg
- PCBs >1mg/kg <50mg/kg
- PCBs >50mg/kg



NO.	DATE	DESCRIPTION
0	10/13	FOR BIDS DUE

PCB CONCRETE  
SAMPLE LOCATIONS

PREPARED BY:  
EA ENGINEERING, P.C.  
AND ITS AFFILIATE  
EA SCIENCE AND  
TECHNOLOGY



CARRS#	EA #
DESIGN #	1490706
FILE	1490706 Contract.dwg
DRAWN BY	JRM
DATE	OCTOBER 2013
SCALE	AS SHOWN
SS	

DEC-Brooklyn5200

9/2/17

Start: 5:00 on: 7:00 Lunch:

Off: 12:00 End:

Purpose: Conduct Post-Scarification Sampling from  
0'-3" bg @ 6 locations

on site: JPL/Bc/Bcc (EAR, Geo/Foreman/Tech)

Equip: 16 F150, Bosche Hammer drill, Honda 2000i,  
generator, PID

Weather: 70's, overcast

### NOTES

- Drove to/from site w/ Bc/Bcc
- Vinnie B. on site upon arrival
- Bc went through safety orientation while I discussed scope of work w/ Vinnie
- As per Vinnie, concrete samples will be biased towards the trench where possible (All samples except CB-20PS\_0-3), where there is the ↑ chance of finding any remaining contamination.
- Concrete sampling was conducted using Bosche hammer drill, w/ a ~~new~~ half tray (chaffing dish) used @ each location to collect the powdered concrete
- Hammer Drill bit deconed w/ liquorox & hexane before sampling & after each sample was collected

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JPL

CB-30PS\_0-3 @ 8:25 \*MS/MSD\* PID 0.9ppm

CB-29PS\_0-3 @ 8:40 \*Dup = CB-X\* PID 0.1ppm

CB-24PS\_0-3 @ 9:10 PID 0.1ppm

CB-22PS\_0-3 @ 9:30 PID 0.9ppm

CB-20PS\_0-3 @ 9:50 PID 0.2ppm

CB-23PS\_0-3 @ 10:30 PID 0.1ppm

Rinse Blank @ 8:00

### Notes cont

- PID zero & span calibrated prior to use
- Rinse Blank collected @ 8:00
- T.A. pick up was on site @ 11:45-11:50  
samples relinquished to T.A.

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JPL



## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-Brooklyn 5200</i>				
Company <i>EAR</i>		P. O. # <i>Site # 224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/>		Other: <input type="checkbox"/>		
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:  Job No:  Sample Numbers
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>24</i>		PCBS Via <i>8082</i> MS/MSD				
Phone <i>(631) 447-6400</i> Fax								
Sample Identification	Date	Time	Matrix	No. of Cont.				
<i>CB-30PS_0-3</i>	<i>9/21/17</i>	<i>825</i>	<i>Soil</i>	<i>3</i>	<i>X</i>	<i>X</i>		
<i>CB-29PS_0-3</i>	<i>↓</i>	<i>840</i>	<i>↓</i>	<i>1</i>	<i>↓</i>	<i>↓</i>		
<i>CB-24PS_0-3</i>	<i>↓</i>	<i>910</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
<i>CB-22PS_0-3</i>	<i>↓</i>	<i>930</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
<i>CB-20PS_0-3</i>	<i>↓</i>	<i>950</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
<i>CB-23PS_0-3</i>	<i>↓</i>	<i>1030</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>	<i>↓</i>		
<i>Rinse Blank</i>	<i>9/21/17</i>	<i>800</i>	<i>Ag</i>	<i>2</i>	<i>X</i>			
<i>CB-X</i>	<i>9/21/17</i>	<i>—</i>	<i>Soil</i>	<i>1</i>	<i>X</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH 6 = Other _____, 7 = Other _____				Soil: <i>1</i>				
				Water: <i>—</i>				

Special Instructions Category B deliverables requested

Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>9/21/17 11:50</i>	Received by <i>[Signature]</i>	Company <i>T A</i>
Relinquished by 2)	Company	Date / Time 	Received by 2)	Company
Relinquished by 3)	Company	Date / Time 	Received by 3)	Company
Relinquished by 4)	Company	Date / Time 	Received by 4)	Company



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Monday, 9/25/17**

Weather: 70's (F), overcast

EAR Personnel Onsite: John Lohan (geologist), Don Griffing (traffic control), Blake Campbell (traffic control)

Drilling Subcontractor: Aarco

Onsite Time: 08:30

Offsite Time: 15:30

EAR and Aarco were onsite to install one monitoring well to replace MW-05. Rig positioning did not require traffic control. As such, EAR traffic control personnel left the site after meeting w/ EA representative (V. Barber) to review focused excavation area.

During advancement of the borehole, soil samples were collected continuously from grade surface to 25-feet below grade surface (BGS) using a split-spoon sampler (2-foot intervals). The samples were inspected lithological changes and physical evidence of contamination. Soil samples collected from the water table interface (11-13 feet BGS, 149.3 ppm) and at the interval exhibiting the highest PID reading (19-21 feet BGS, 120.4 ppm) were retained and submitted to Test America for analysis of TCL+30/TAL parameters with a 72-hr analytical turnaround time requested.

MW-05R was installed to specifications using hollow-stem augering techniques. Well is constructed of 14-feet of 2-inch diameter, 10-slot, schedule 40 PVC screen installed from 14 feet to 24 feet BGS, and 14-feet of 2-inch diameter, schedule 40 PVC riser. Gravel pack was installed from 24-feet to 12-feet BGS, with a bentonite seal from 12-feet to 9-feet BGS. Bentonite grout was installed from 9-feet BGS to near grade. The surface was finished with an 8-inch diameter, steel, bolt-down manhole set in a 24-inch by 24-inch concrete pad. The well casing was secured with a locking J-plug. Well is located 10.5-feet west of the 52<sup>nd</sup> Street west curbline, 17.5-feet north of MW-10, and 29.4-feet north of the northwest corner of the Block 803, Lot 6 building.

MW-05R was developed via pumping using a submersible pump. The well was pumped of at least 5 well volumes and two consecutive samples yielded turbidity readings less than 50 nephelometric turbidity units (NTU). Generated purge water (~40 gallons) was comingled with PAL aqueous wastes.



1 drum of mixed drill cuttings and decontamination rinsate was generated and staged onsite for EAR characterization, transportation, and disposal.

Geologist's field notes and chain of custody form are attached. A drill log for MW-05R is currently being prepared and will be submitted under separate cover.

DEC-Brooklyn 5200

9/25/17 1945

Start: 530 AM 830 Lunch: 1500-1530 Off: 1530 End: 2000

Purpose: OHD MW installation by AARCO, & well development

On site: JPL (EAR, Geo) DG/BCC (EAR, Flaggers)

Tim Kelly/Scott D. (AARCO, Hdriller/ASSIST)

Equip: 16 Transit, PID #18, Turbidimeter, YSI, WLM, Walking wheel, camera (PSP)

Weather: ↑ 80's, Sunny

### Notes

- Vinnie B on site upon arrival/departure

- AARCO on site upon arrival

- DG/BCC on site ~ 830

- AS discussed w/ Vinnie B & I. Hofmann, was determined that traffic control was not needed for well installation, & wasn't set up.

- DG/BCC off site by 1000.

- PID was zero & span calibrated prior to use.

- Well is to be advanced by AARCO, using a BK-81 drill rig implementing hollow stem Augers & split spoon sampling (continuous) from post hole to target depth (24' bg)

~~split spoons~~

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JPL

MW-05R

0-5' @ 940 Post Hole - cleared

5-7' @ 957 split spoon (SS) PID 32.4 ppm

1.45/2

0.25 Black F sand, tr M, HC; moist, no s/o

1.20 Brown same ↗

7-9' @ 1000 SS PID 25.6 ppm

1.10/2

0.30 Black same ↗

0.80 Brown same ↗

9-11' @ 1103 SS PID 68.4 ppm

1.5/2

0.25 Black same ↗

1.25 Brown F sand, tr silt, tr M, HC; moist, no s/o

11-13' @ 1010 SS PID 149.3 ppm

1.05/2

0.25 Black F sand, tr M, tr C; moist, no s/o

0.25 Brown F, tr silt, tr M, HC; moist, no s/o

0.65 Brown same ↗; wet, no s/o

13-15' @ 1020 SS PID 3.9 ppm

2/2

1.70 Brown same

0.30 Black same; wet, no stain, faint white odor, like

a mild bathroom cleaner (solvent?)

2 of 5

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JPL

DEC-Brooklyn 5200

9/25/17

MW-05R Cont

15-17' @ 1027 SS PID 6.7ppm

0.95 / 2

0.90 Brown F sand, tr silt, tr M, wet, no S/O

0.03 Black F M sand, tr C, wet, no stain, some mild detergent odor (PerC)

17-19 @ 1038 SS PID 87.1ppm

1.4 / 2

1.40 Brown F sand, tr M, tr C, wet, stain on

last 0.40', odor - Perc

19-21 @ 1045 SS PID 20.4ppm

2 / 2

2.0 Brown same  $\bar{d}$ ; wet, stained, Perc odor21-23 @ 1058 SS PID ~~12.4ppm~~

0.55 / 2

54.1ppm

0.55 Brown ~~same~~ F sand, little M, tr C, wet

light stain, Perc odor

23-25 @ 1102 PID 30.3ppm

2 / 2

2.00 Brown F sand, little M, tr C, tr silt, wet, no stain faint odor (Perc)

- AS DISCUSSED w/ I. Hoffmann, the 11-13 & 19-21 intervals were selected for lab analysis labeled:

MW-05R 11-13 &amp; MW-05R 19-21 respectively

3 of 5

95

JRL

## Notes Cont

- AS per the well design, MW-05R was installed using ~ 14' of 2" Sch 40 PVC & 10' section of PVC 10 Slot Screen. Gravel pack was installed to 12' bg, w/ a bentonite seal from 12'-9' bg, & brought to grade w/ bentonite grout. The well was finished w/ an 8" steel bolt down manhole & locking 5-Plug cap, & set in an ~ 2'x2' concrete pad.

- PVC was installed, & gravel pack, bentonite, & grout were in place by 11:55

- THD: 24.05' DTW: 13.02' Water Column: 11.06'  
Well volume: 1.93 gal

- Well development was conducted via a water pump, & measured using 5 gal buckets. Screening via Turbidimeter & YSI only started once water began to clear up (~20 gal)

Time	Pumped	pH	sp cond	Temp	Turbidity
1302	~25 gal	7.31	1041	16.84	80.4
1311	~30 gal	7.21	1224	17.10	60.9
1318	~35 gal	7.22	1447	17.38	21.0
1325	~40 gal	7.28	1642	17.94	20.3

- Post well development concrete pad was installed

- 1 Drum of drill cuttings was generated. Decon water was added to drum. Drum staged onsite behind work fence.

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JRL

DEC-Brooklyn 5200

9/25/17

1. Notes Cont

- Purge water from well development added to PAL onsite containers.
- AARCO packed/cleaned up & off site by 1430.
- T.A. Conries on site 1448-1452 to pick up the day's samples

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Page 1 of 1

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>		Site/Project Identification <i>DEC-BROOKLYN 5200</i>									
Company <i>EAR</i>		P. O. # <i>224015</i>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYS DEC</i> DKQP: <input type="checkbox"/>					
Address <i>225 ATLANTIC AVE</i>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)								LAB USE ONLY Project No:	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>											
Phone <i>(631) 447-6400</i> Fax		1 Week <input type="checkbox"/>		<i>8260C-TCL VOCs</i> <i>5040 1,2,110</i> <i>9012B, Cyanide, TDI, al</i> <i>8270D, 8081B, 8082A</i> <i>6010C, 7471B</i>									
Other <input checked="" type="checkbox"/> <i>72HR</i>		Sample Identification										Date	
<i>MW-05R_11-13</i>		<i>9/25/17</i>		<i>1010</i>		<i>Soil</i>		<i>6</i>		<i>X</i>			
<i>MW-05R_19-21</i>		<i>↓</i>		<i>1045</i>		<i>↓</i>		<i>6</i>		<i>X</i>			
<i>Tri.P Blank</i>		<i>9/25/17</i>		<i>✓</i>		<i>Aq.</i>		<i>2</i>		<i>X</i>			
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:		<i>1</i>		<i>1</i>		<i>1</i>			
6 = Other _____, 7 = Other _____				Water:		<i>2</i>							

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <i>John Yeh</i>	Company <i>EAR</i>	Date / Time <i>9/25/17 11450</i>	Received by 1) <i>[Signature]</i>	Company <i>T A</i>
Relinquished by 2) <i>[Signature]</i>	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company



# AARCO Environmental Services Corp.

## DAILY JOB REPORT

Customer: EAR Date: 9/25/17 Weather: Hot Humid

Job Location: 5200 First Ave Bldg Job #: 15-235223 Day of Week: Monday

### Description of Work:

1-Hand clear to 5GT Big Drill w/ 4" Auger Add Sample w/ ~~10~~ Spitspoons  
From 5GT - 24FT SET 2" well in Bone Hole Sand Pack Bentonite Seal  
Grant to Grade ManHole cover w/ Pad 10 Spitspoons TAKEN  
1 Hand clear Refusal At 4ft unknown obstruction 1 Drum filled Soil  
Develop 2" well w/ whale Pump APPROX 45 min Clean work Area

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Start Time: 5:00 AM Leave Shop: 5:30 AM

Arrive on Job Site: 7:00 AM Leave Job Site (1): 2:30 PM Total Hrs On-Site: \_\_\_\_\_

Arrive at Shop: \_\_\_\_\_ Clock Out Time: \_\_\_\_\_ Total Hrs for Day: \_\_\_\_\_

Overtime approved by: \_\_\_\_\_ )

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Tim Kelly</u>	<u>Yes</u>	<u>Driller</u>
<u>Scott Decker</u>	<u>Yes</u>	<u>Helper</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:	Material Used:
<u>181</u>	<u>1 Drum</u> <u>1 Cap</u>
	<u>2 Bgs concrete</u> <u>1 Pig</u>
	<u>1 1/2 Bgs Bentonite powder</u> <u>1 ManHole cover</u>
	<u>1 Bg Portland cement</u>
	<u>1 Bg Bentonite chips</u>
	<u>8 Bgs Sand</u>
	<u>10ft Screen</u> <u>10 slot</u>
	<u>14ft Riser</u>

Aarco Signature: [Signature] Client Signature: [Signature]





## **Empire Electric NYSDEC Site No. 224015 Daily Field Report**

**Date: Wednesday, 9/27/17**

Weather: 80's (F), humid, sun and clouds

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 07:45

Offsite Time: 16:00

EAR and Aarco were onsite to conduct soil probing and temporary well installations. A track-mounted Geoprobe model 7822DT was used to advance the borings.

Following review of the proposed boring locations, the rig was set up at SB-35D (see attached map). After rig hit refusal at approximately 7-feet below grade, the boring was relocated approximately 6-feet west. Rig hit refusal again at 7-feet below grade at this new location and again at a third alternate location. Obstruction is believed to be a concrete slab. Per onsite EA and NYSDEC representatives (V. Barber and C. Post, respectively), no further attempts were made at this location.

At location SB-36D, rig hit refusal at approximately 8.5-feet below grade. The boring was relocated and rig again hit refusal at 8.5-feet below grade. As directed by NYSDEC (C. Post), the temporary well was installed at this depth and only the 6-8 foot interval sample was submitted for laboratory analysis. The temporary well was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 1-foot above grade. No. 0 gravel pack was installed to 2.5-feet below grade, and a bentonite seal was installed from 2.5-feet below grade to surface.

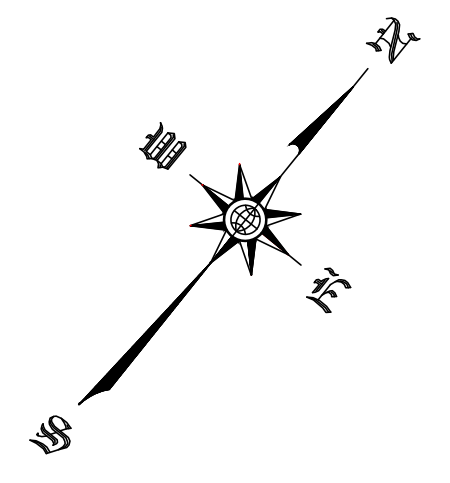
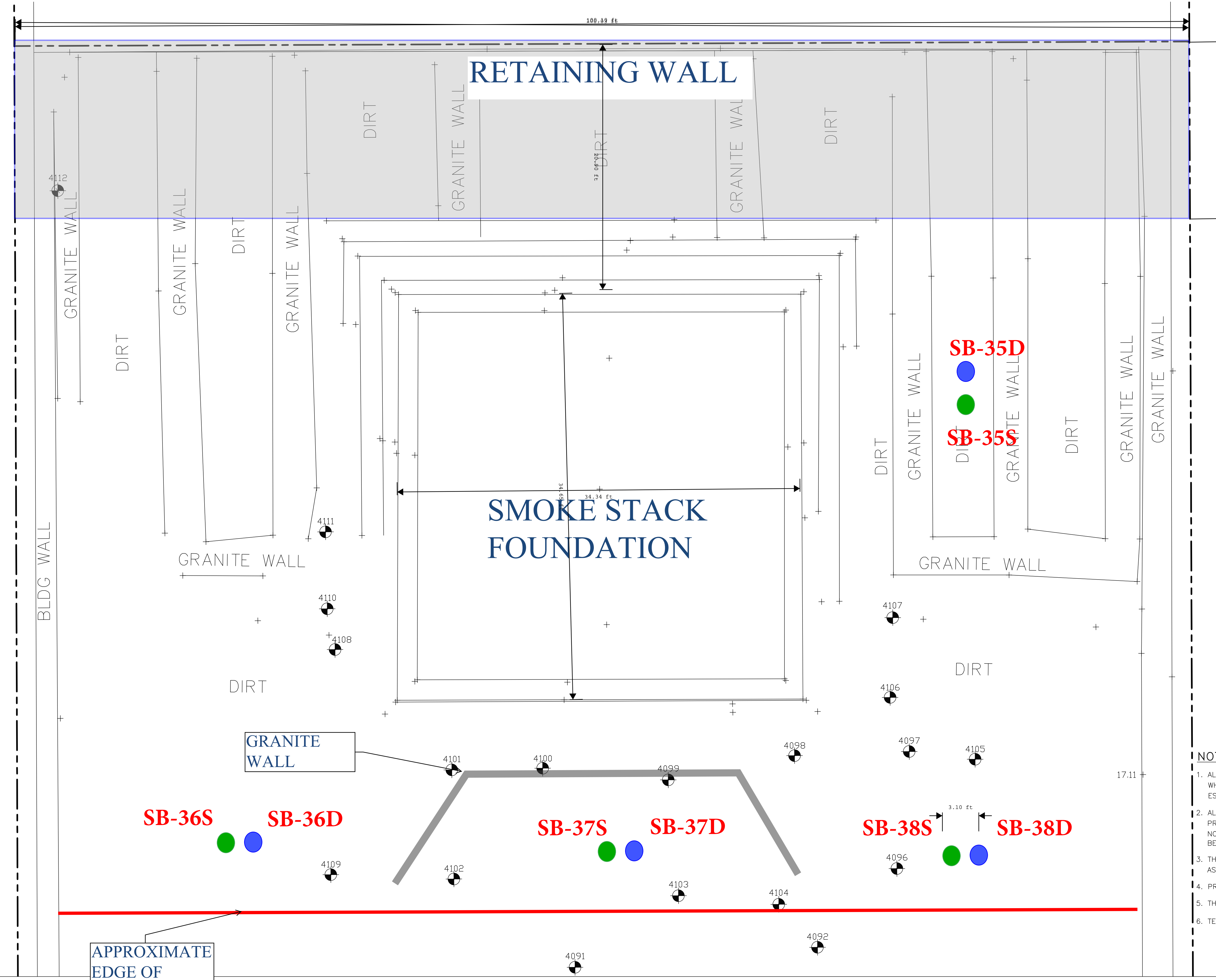
At location SB-37D, a wood pile was encountered at approximately 12-feet below grade. Drilling activities were stopped for the day. Advancement of SB-37D will be reattempted on 9/28 at a new location.

One (1) soil sample (SB-36D\_6-8) as submitted to Test America, Inc. for the full suite of analyses to include: TCL VOC+10, TCL SVOC+20, PCBs, PESTS, TAL METALS, TOTAL CYANIDE. Sample was submitted for an expedited 72-hr turnaround time with NYSDEC ASP Category B deliverables requested.



All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsates were intermingled with PAL aqueous wastes.

Geologist's field notes and chain of custody form are attached.



- Soil boring with continuous sampling at 2-ft intervals to a minimum depth of 20-ft bgs. and temporary (2" dia.) PVC groundwater well screened from 18-ft to 20-ft bgs
- Temporary (2" dia.) PVC groundwater well screened from 8-ft to 10-ft bgs

**LEGEND:**

EXISTING ELEVATION .....	20.96 20.69
TEST SAMPLE LOCATION	

- NOTE:**
1. ALL ELEVATIONS SHOWN HEREON REFER TO THE BROOKLYN TOPOGRAPHICAL BUREAU DATUM WHICH IS 2.547 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK, NEW JERSEY AS ESTABLISHED BY THE U.S. COAST AND GEODETIC SURVEY.
  2. ALL SUBSURFACE UTILITIES SHOWN HEREON WERE OBTAINED FROM CITY DEPARTMENTS AND PRIVATE UTILITY COMPANIES AND THE LOCATION OF SAID UTILITIES ARE APPROXIMATE AND NOT GUARANTEED BY THE SURVEYOR. CONSULT APPROPRIATE DEPARTMENT OR COMPANY BEFORE DESIGNING ANY CONNECTIONS.
  3. THERE ARE NO VISIBLE STREAMS OR NATURAL WATER COURSES ON THE PROPERTY EXCEPT AS SHOWN ON THE SURVEY.
  4. PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.
  5. THE STATE EDUCATION LAW PROHIBITS ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, FROM PREPARING ANY SURVEYING INSTRUMENTS.
  6. TEST SAMPLE TABLE SEE SHEET TSL-4.

APPROXIMATE  
EDGE OF  
CONCRETE

MATCH LINE SEE SHEET TSL-2

PREPARE BY:

PREPARE FOR:  
**P.A.L. ENVIRONMENTAL**  
 1120 QUEENS PLAZA SO.  
 LONG ISLAND CITY, NY 11101

DESCRIPTION	REVISION	DATE	BY	APR

DATE: AUGUST, 2017  
 DRAWN BY: I.Z.  
 CHECKED BY: W.W.

DWG TITLE:  
 5200 1st AVENUE  
 BROOKLYN, NEW YORK  
 PARTIAL FOUNDATION EXCAVATION

DWG. NO.  
**TSL-3**  
 REV.

DEC - Brooklyn 5200

9/25/17

Notes cont.

- Surge water from well development added to PAL onsite containers.
- AARCO packed/cleaned up & off site by 1430.
- T.A. carries on site 1448-1452 to pick up the day's samples

Location

- 10.5' V

- 17.5' E

- 29.4' NV

5 of 5

J97

SPL

Brooklyn 5200

9/27/17

Start: 430 ON: 745 Lunch: 1500-1530 off 1600 End 2045

Purpose: OAD <sup>Advancement</sup> ~~Installation~~ of 8 soil borings, #8

Corresponding piezometers by AARCO

on site: SPL (EAR, Geo)

Equip: 16 Transit, PID #18, Camera (PDR)

Weather: mid to ↑ 80's, humid, Sunny to partially cloudy

Notes:

- Accident on 27th (BRE) delayed on site time
- Vinnie B. on site upon arrival (EA onsite Rep)
- PID zero & span calibrated prior to use
  - Ambient PID = 0.0ppm
- Discussed scope of work w/ Vinnie B., & had brief walk about through work zone, reviewing proposed locations
- AARCO on site ~805, delayed by same accident on BRE
- Reviewed scope of work w/ AARCO crew, & Vinnie including decon procedure.
- AARCO is using a Geoprobe model 7822DT to advance borings & set piezometers
- notes cont. on pg 103

1 of 6

98

SPL

DEC-Brooklyn 5200

9/27/17

SB-35D

0-4' @ 945

PID 0.9ppm

3.10/4

0.35 Tan F sand (fill)

0.50 Brown F Sand, trM, dry, no odor/stain

0.40 crushed red brick + concrete

1.85 Brown F Sand, trM, dry, no s/o

4-8 @ 957

PID 1.1ppm

2.15/4

2.15 Brown F Sand trM, trC, wet, no s/o

- Hit refusal @ ~ 7' bg, moved ~ 6' W

0-4' @ 1005

2.10/4

- Hit refusal @ ~ 7'. Moving location ~ 5' S

0-4' @ 1016

PID

2.90/4

0.55 Tan F, little trM, trC; dry no s/o (fill)

2.35 Brown F sand, trM, trC; moist no s/o

- Hit rejection @ ~ 7' bg

- Informed Ian of hitting 3 refusals, then spoke w/Vinnie B. (EA) & Charlie (NYSDEC), who had arrived on site. AS per Vinnie, the refusal is most likely due to a concrete slab laid down when building was first constructed. AS per Vinnie & Charlie, no further attempts to advance SB-35D urs will

2 of 6

99

JPL

SB-35D cont

be made @ this time, & we'll move onto the next boring.

SB-36D

0-4' @ 1100

4.8ppm

2/4

2.00 - Tan F Sand, trM, trC, to F mica

4-8 @ 1105

64.2ppm

2.50/4

0.50 Brown F Sand, trM, trC; moist, no s/o

0.1.20 Brown F Sand, trM; wet faint odor

0.80 D Brown Silty F Sand, trM; wet, faint odor

- Hit refusal @ ~ 8.5' - concrete

- Vinnie, using skid steel, extended the layer of clean fill SB that rig could be moved ~ 8' further West

0-4' @ 1133

PID 0.9

2.65/4

2.65 Tan F Sand, trM, trC; dry → moist, no s/o

4-8 @ 1140

PID 94.2ppm

3.30/4

1.10 Tan

2.20 Brown F Sand, trM, trC; wet, no stain, odor

- Refusal hit @ ~ 8.5' bg.

3 of 6

100

JPL

DEC-Brooklyn 5200

9/27/17

SB-36D Cont

- Informed Vinnie & Charlie about refusal, & they came into workzone to see. As per Vinnie & Charlie SB-36 will be set @ ~ 8' bg, where we hit refusal, & only the end point sample will be sent in for lab analysis (VOCs, SVOCs, TAL Metals, PCB, Pesticides & total cyanide). No other <sup>intervals</sup> samples from SB-36D will be sent for analysis. Also, <sup>all</sup> refusals will be marked w/ a metal rod for future reference (except for those from SB-35D)

~~It~~ consists of As discussed w/ I. Hofmann Perimeter ~~with~~ consists of a 2" sch 40 PVC w/ a prepacked screen, 5' long, & associated riser to ~ 1' above grade (~ 3' to grade + ~ 1' stick up). In addition to the prepacked screen N.O. sand ~~will be~~ <sup>was</sup> installed to ~ 2.5' bg, w/ a bentonite seal from 2.5' bg to grade.

4 of 6

101

SPL

SB-37D

0-4 @ 1332

PID 8.4 ppm

2.45/4

0.65 Tan F sand, trM, trC; dry nose (fill)

1.80 Brown F sand, trM; moist nose

4-8 @ 1340

PID 62.1 ppm

1.75/4

0.55 Brown Same <sup>↑</sup>

Piling

1.20 Brown Same, wet, + 3' piece of wood <sup>↑</sup>

8-12 @ 1345

PID 84.9

2.25/4

2.25 Wood <sup>piling</sup> piling ground/in pieces

- As per Vinnie B. boring went into an old wood piling. They should only be ~ 12" in dia. We will move ~ 1' closer to the granite foundation & try again

- Work stopped @ ~ 11:00. Crew was working in ↑ heat/sunlight in Tyvek suits & I felt that to keep operating posed risk of heat exhaustion.

5 of 6

102

SPL

DEC-Brooklyn 52.00

9/27/17

Notes Cont

- While operating the rig, & in the workzone Tyvek suits & over boots were used by all AARCO & EAR personnel.
- All PPE & IDW (investigation derived waste) was put into EAR'S IDW drum already staged on site
- Between Samples & boring locations AARCO decontaminated all sampling equipment using Alconox, Hexane, & washing with water
- AARCO off site ~ 1430
- Vinnie B off site ~ 1525
- Charlie (DEC) on site ~ 1000, off ~ 1400. (rough estimates, did not personally see Charlie arrive/leave)
- T.A Pick up on site 1600-1605 to get the days samples

Granite  
foundation

SB-35  
RR  
□ return

SB-36  
RR - refusal

X

SB-37  
RR - refusal

6 of 6

103

582

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <i>Ian Hofmann</i>		Samplers Name ( Printed ) <i>EAR</i>			Site/Project Identification <i>DEC-Brooklyn 5200</i>								
Company <i>EAR</i>		P. O. # <i>Site # 224015</i>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <i>NYS DEC</i>		DKQP: <input type="checkbox"/>		
Address <i>225 Atlantic Ave</i>		Analysis Turnaround Time Standard <input type="checkbox"/>			ANALYSIS REQUESTED (ENTER *X: BELOW TO INDICATE REQUEST)							LAB USE ONLY Project No:	
City <i>Patchogue</i> State <i>NY</i>		Rush Charges Authorized For: 2 Week <input type="checkbox"/> 1 Week <input type="checkbox"/> Other <input checked="" type="checkbox"/> <i>72 Hr</i>											
Phone <i>(631) 447/6400</i> Fax		No. of Cont.			<i>82600</i> <i>SVC, TAL Metals</i> <i>PCB, Pesticides</i> <i>Total Cyanide</i>							Job No:	
												Sample Numbers	
Sample Identification	Date	Time	Matrix	No. of Cont.	X	X							
<i>SB-36D_b-8</i>	<i>9/27/17</i>	<i>1140</i>	<i>soil</i>	<i>6</i>									
<i>Trip Blank</i>	<i>9/27/17</i>	<i>/</i>	<i>Aq</i>	<i>2</i>	<i>X</i>								
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH					Soil:	<i>1</i>	<i>1</i>						
6 = Other _____, 7 = Other _____					Water:	<i>2</i>							

**Special Instructions** *Category B deliverables requested* Water Metals Filtered (Yes/No)?

Relinquished by <i>John John</i>	Company <i>EAR</i>	Date / Time <i>9/27/17 11:00</i>	Received by <i>[Signature]</i>	Company
Relinquished by 2)	Company	Date / Time	Received by 2)	Company
Relinquished by 3)	Company	Date / Time	Received by 3)	Company
Relinquished by 4)	Company	Date / Time	Received by 4)	Company





# AARCO Environmental Services Corp.

## DAILY JOB REPORT

Customer: EAR Date: 9/27/17 Weather: 85°F

Job Location: 5200 First Ave, Brooklyn Job #: \_\_\_\_\_ Day of Week: Wednesday

**Description of Work:**  
- 6 environmental borings w/ 4' macro  
• 3 to 7 1/2 (refusal)  
• 2 to 8 (refusal)  
• 1 to 16 - drilled through wood & client told me to move  
- Installed 1 gwnw to 8' Bsg w/ 5' prepacked screen.

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_  
Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Start Time: 5:00 Leave Shop: 5:30  
Arrive on Job Site: 8:00 Leave Job Site (1): 2:30 Total Hrs On-Site: 6.5  
Arrive at Shop: \_\_\_\_\_ Clock Out Time: \_\_\_\_\_ Total Hrs for Day: \_\_\_\_\_

Overtime approved by: \_\_\_\_\_ )

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Adam Hutchinson</u>	<u>/</u>	<u>/</u>
<u>Will Scheiner</u>		
_____		
_____		
_____		
_____		
_____		

Equipment Used:	Material Used:
<u>D214</u>	<u>1/2 bag bentonite</u>
<u>7822 DT</u>	<u>1 bag of sand</u>
	<u>1, 5' prepack screen</u>
	<u>1 riser</u>

Aarco Signature: X [Signature] Client Signature: X [Signature]



## Empire Electric NYSDEC Site No. 224015 Daily Field Report

**Date: Thursday, 9/28/17**

Weather: 70's-80's (F)

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 06:30

Offsite Time: 16:30

EAR and Aarco were onsite to continue soil probing and temporary well installations. A track-mounted Geoprobe model 7822DT was used to advance the borings.

Probing began at a new location for SB-37. Probe hit refusal at 8-feet below grade (BG) and was relocated again. The boring was advanced to 24-feet BG. A temporary well (SB-37D) was installed which was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2-feet above grade. No. 0 gravel pack was installed to 17-feet BG, and a bentonite seal was installed from 17-feet BG to surface. A complementary, shallow well (SB-37S) was installed adjacent to SB-37D to a total depth of 11-feet BG. SB-37S was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4-feet BG, and a bentonite seal was installed from 4-feet BG to surface.

At location SB-38, probe was able to advance to 28-feet BG. However, when attempting to advance larger diameter rods for the installation of the temporary well, rig hit refusal at approximately 11.5 feet BG. This corresponds to the depth interval at which concrete was observed during sampling activities (see geologist's notes). Per onsite EA representative, the temporary well was set at 11.5-feet BG and was constructed of a 2-inch diameter, 5-foot pre-packed screen, with 4-feet of 2-inch diameter, schedule 40 PVC riser extending to 2.5-feet above grade. No. 0 gravel pack was installed to 4.5-feet BG, and a bentonite seal was installed from 4.5-feet BG to surface.

Twelve (12) soil samples were submitted to Test America, Inc. for analysis of PCB's via EPA Method 8082. Six (6) of the twelve samples (those corresponding to depth intervals of the water table interface, approximate depth of upcoming focused soil excavation, and boring terminus) were also submitted for the full suite of analyses to include: TCL VOC+10, TCL SVOC+20, PESTS, TAL METALS, TOTAL CYANIDE. One (1) aqueous sample (rinse blank) was



submitted for analysis of PCB's via EPA Method 8082. All samples were submitted for expedited turnaround times with NYSDEC ASP Category B deliverables requested.

A total of four (4) temporary wells were installed 9/27-9/28/17:

SB-36 (installed to 8.5-feet BG)

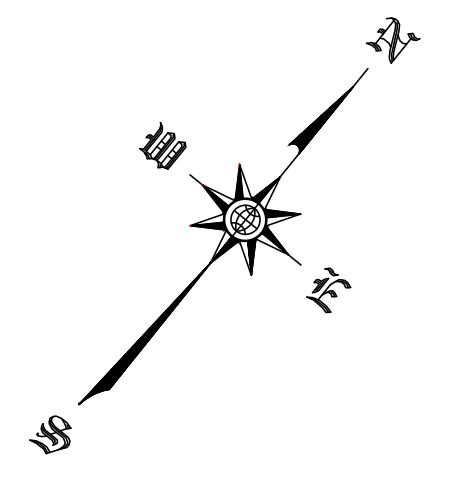
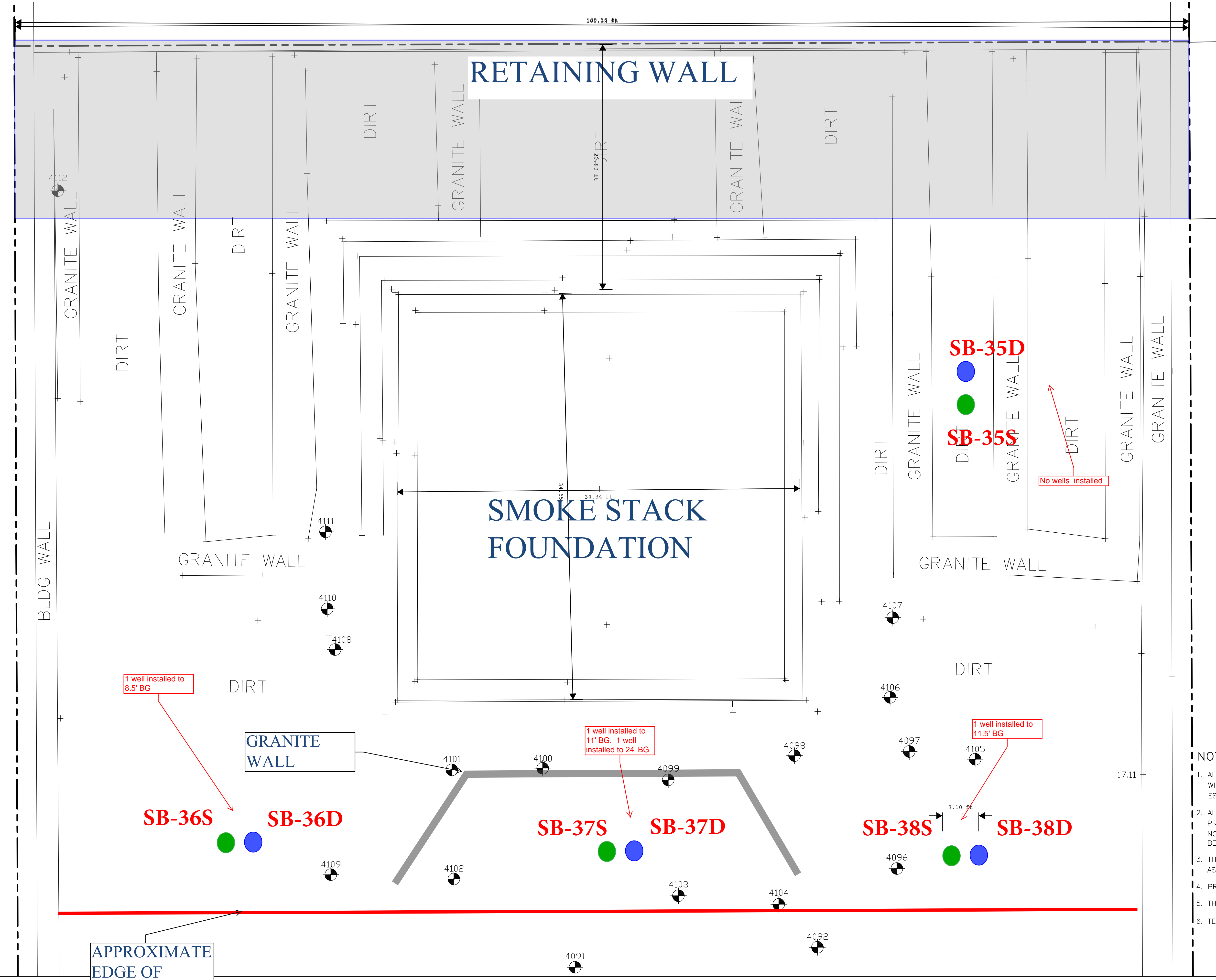
SB-37S (installed to 11-feet BG)

SB-37D (installed to 24-feet BG)

SB-38 (installed to 11.5-feet BG)

All downhole tooling was decontaminated between sample intervals via Alconox scrub, followed by hexane wipe-down, and de-ionized water rinse. Decontamination rinsates were intermingled with PAL aqueous wastes.

Geologist's field notes and chain of custody form are attached.



- LEGEND:**
- Soil boring with continuous sampling at 2-ft intervals to a minimum depth of 20-ft bgs. and temporary (2" dia.) PVC groundwater well screened from 18-ft to 20-ft bgs
  - Temporary (2" dia.) PVC groundwater well screened from 8-ft to 10-ft bgs

- LEGEND:**
- EXISTING ELEVATION ..... 20.96  
20.69
  - TEST SAMPLE LOCATION

- NOTE:**
1. ALL ELEVATIONS SHOWN HEREON REFER TO THE BROOKLYN TOPOGRAPHICAL BUREAU DATUM WHICH IS 2.547 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK, NEW JERSEY AS ESTABLISHED BY THE U.S. COAST AND GEODETIC SURVEY.
  2. ALL SUBSURFACE UTILITIES SHOWN HEREON WERE OBTAINED FROM CITY DEPARTMENTS AND PRIVATE UTILITY COMPANIES AND THE LOCATION OF SAID UTILITIES ARE APPROXIMATE AND NOT GUARANTEED BY THE SURVEYOR. CONSULT APPROPRIATE DEPARTMENT OR COMPANY BEFORE DESIGNING ANY CONNECTIONS.
  3. THERE ARE NO VISIBLE STREAMS OR NATURAL WATER COURSES ON THE PROPERTY EXCEPT AS SHOWN ON THE SURVEY.
  4. PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.
  5. THE STATE EDUCATION LAW PROHIBITS ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, FROM PREPARING ANY DRAWING FOR THE CONSTRUCTION OF A BUILDING OR STRUCTURE.
  6. TEST SAMPLE TABLE SEE SHEET TSL-4.

1 well installed to 8.5' BG

1 well installed to 11' BG. 1 well installed to 24' BG

1 well installed to 11.5' BG

No wells installed

DESCRIPTION	REVISION	DATE	BY	APR

DEC-Brooklyn 5200

9/27/17

Notes Cont

- While operating the rig, & in the workzone Tyvek suits & over boots were used by all AARCO & EAR personnel.
- All PPE & IDW (Investigation derived waste) was put into EAR'S IDW drum already staged on site.
- Between samples & boring locations AARCO decontaminated all sampling equipment using Alconox, Hexane, & washing with water.
- AARCO off site ~ 1430
- Vinnie B off site ~ 525
- Charlie (DEC) on site ~ 1000, off ~ 1400. (rough estimates, did not personally see Charlie arrive/leave)
- T.A Pick up on site 1600-1605 to get the days samples

Granite foundation

SB-35  
P  
return

SB-36  
return

X

SB-37  
return

6 of 6

103

JPL

DEC-Brooklyn 5200

9/28/17

Start: 415 on: 630 Lunch 1400-1430 off: 1630 End: 2100

Purpose: Continue O+D of Soil boring advancement & Piezometer installation on site. JPL (EAR, Geo), Adam Hutchinson / Nick Turvo (AARCO, Hdr./Assist)

Equip: 16 Transit, PID #18, WLM, Camera (P&P), Tape measure,

Weather: 70's -> 180's

Notes:

- Vinnie B. (EA on site rep) on site ~ 415
- PID calibration checked prior to use
  - Ambient PID = 0.1 ppm
- AARCO on site ~ 730, off by 1600
- Charlie P. (DEC) on site ~ 1000, off site ~ 1330 (Like on 9/27 these are rough estimates, did not see when Charlie arrived/left)
- AARCO using Geoprobe model 7822DT to collect 4' macro core samples via direct push, & 3 3/4" rods to install Temp Piezometers
- between samples & between points, AARCO decontaminated equipment using Alconox wash, Hexane wipe down & rinsed w/ water

1 of 6

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JPL

EAR  
wh  
har  
pre  
dis

DEC-Brooklyn 5200

9/28/17

SB-37D

0-4' @ 820 Macro core (MC) PID 1.1 ppm

3.75/4

0.80 Tan F sand, HM sand; dry no s/o (fill)

2.95 Brown F Sand, HM, HC; moist, no s/o

4-8' @ 825 MC PID 1.9 ppm

4.00/4

0.35 Tan fill

0.15 Brown F Sand, HM, HC; moist no s/o

3.50 Brown Same J; wet, sheen, odor.

- Hit rejection @ ~ 8' bg closed ↓
- Discussed situation w/ Vinnie & Charlie, relocated to where the trench discharges.

0-4 @ 845 MC PID 68.4 ppm

3.70/4

0.65 Tan fill

1.25 Brown F Sand, HM, HC; dry no s/o

0.40 Brown Same J; moist no s/o

0.40 Black Same J; wet, no stain, odor (~0.20 concrete sand)

4-8 @ 850 MC PID 101.9 ppm

3.9/4

0.15 backfill (fill)

2.75 Brown F Sand, HM, HC; wet, no stain, odor

5-12 @ 857 PID 41.1 ppm

2.95/4

2 of 6

105

JPL

SB-37D cont

- 0.60 Brown silty F sand, HM; wet, no stain, odor

- 2.35 Brown Same J; wet, no stain, faint odor

12-16 @ 905 PID 90.2 ppm

3.8/4

1.50 Brown/black silty F sand, HM; wet, no stain, odor

2.80 Brown Same J; wet, no stain, faint odor

1.00 Brown FHM sand, some C; wet, no s/o (sample)

18-20 @ 912 PID 79.2 ppm

4.00/4

4.00 Brown F sand, some M, little C; wet, no stain, odor

20-24' @ 920 PID 92.8 ppm

3.40/4

3.40 F+M sand, little C; wet, no stain, faint odor

- SB-37D set @ ~ 24' bg (a foot was added to compensate

for the amount of fill encountered @ the top). The

Piezometer consists of 5' of 10 slot prepacked screen,

Sch 40, 2" dia, &amp; ~ 19' of riser + ~ 2' of

stick up. #0 sand installed to ~ 17' bg, &amp; bentonite

from ~ 17'-20' bg

- SB-37D set 10' bg (again 1' added bk of fill).

5' of 2" dia, Sch 40, prepacked 10 slot screen w/

~ 6' of riser &amp; 2.5' of stick up. sand installed

to ~ 4' bg &amp; bentonite from 4'-0' bg

3 of 6

106

JPL

DEC-Brooklyn 5200

9/28/17

SB-38D

0-4 @ 1223

MC

PID 0.3 ppm

3.00 1/4

1.40/1.5 Tan F sand, trM sand, dry, no s/o (Fill)

1.60 Brown F sand, trM, moist, no s/o

4-8 @ 1228

MC

2.7/4

1.00 Brown same, moist, no s/o

1.70 Brown same J, wet no s/o

8-12 @ 1235

MC

PID 0.8 ppm

4 1/4

2.4 Brown same J, wet

0.60 Brown F sand, trM, little gravel, wet

0.95 Concrete, crushed

12-16 @ 1246

MC

PID 0.4 ppm

4/4

2.00 Brown F sand, little gravel, trM, wet

1.40 Concrete

0.60 Wood (from piling?)

16-20 @ 1303

MC

PID 7.1 ppm

3.8 1/4

2.95 Brown/gray F sand, trM, tr concrete, tr wood

1.85 Brown F sand, some M, trC, wet no s/o

20-24 @ 1320

MC

PID 0.4 ppm

3.6/4

4 of 6

107

SPL

SB-38D cont

3.60 Red/brown F sand, little M, trC, wet, no s/o

24-28 @ 1340

PID

- 1/4

- Sample fell out of sleeve. will redrill

24-28 @ 1340

MC

PID 3.4 ppm

3.8/4

3.80 red/brown same J

3.3/4"

- When ~~the~~ advancing the rods (~~3"~~ 3.3/4" dia) to set the deeper piezometer, AARCO hit refusal @ ~11.5' bg, which corresponds to where we saw concrete first appear in the macro cores. AARCO could not advance past the concrete so, as per Winnie, we will set a single ~~piezometer~~ piezometer @ ~11.5' bg.
- SB-38 set @ 11.5' bg, consists of a 5' section of 2" dia, Sch 40 prepacked screen, 6' of sch 40 PVC riser with ~2.5' of stick up. ~~the~~ gravel installed to 4.5' bg & bentonite from 4.5' bg to grade.
- As discussed w/ Charlie, SB-38D-24-28 will not be selected for any lab analysis.

5 of 6

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JPL

DEC-Brooklyn 5200

9/28/17

Notes cont

- Before starting on SB-38D, as requested by Vinnie, AARCO collected a single macro core from manhole in trench line to ~~test~~ determine if it has a bottom. Concrete refusal @ ~3' bg, contents not described.
- Also as per Vinnie, one extra advancement was performed in vicinity of SB-37D, but closer to the granite ~~shaft~~ chimney foundation, just to determine where we'd hit refusal, no samples collected, direct refusal @ 8' bg.
- Test America Courier on site 1410 to collect samples. only samples from SB-37D were relinquished. The others (from SB-38D) were not ready & were brought to EAR & relinquished to EAR sample fridge for pick up on 9/29/17, by T.A. Courier.
- AARCO finished final decon & packed up probe by ~1545. off site by 1600

6 of 6

109

SPL

~~DEC-Brooklyn 5200~~

9/29/17

~~Start: 430 or: 630 lunch 1300-1330 off 1330 ETL~~

~~Purpose: O+D development of piezometers installed from 9/27 -> 28/17 by AARCO~~

~~on site: SPL (EAR, Geo) Adam Hutchinson (AARCO)~~

~~Equip: 16 Transit, WLM, YSI, Camera (R&P),~~

~~Turbidimeter (Pine rental)~~

~~Weather: ↑ 60's, Partly Cloudy~~

Notes

- Vinnie B. on site 6:45
- AARCO on site @ 700, off @ 1300
- Turbidimeter calibration checked prior to use, all calibration vials registered within 0.5 NTU of labeled value.
- As discussed w/ I. Hofmann, since the installed piezometers frequently need to recharge, YSI will not be used for field screening as the readings wouldn't be able to stabilize before needing to recharge.
- Piezometer development to be performed by AARCO via whole pump
- As discussed w/ I Hofmann, will not spend more than ~1 hour developing any 1 well, to make sure we get to all ~~points~~ <sup>points</sup> today

1 of 4

110

SPL





# AARCO Environmental Services Corp.

## DAILY JOB REPORT

Customer: EAR Date: 9/28/17 Weather: 78°F Sunny  
 Job Location: 5200 1<sup>st</sup> Ave, Brooklyn Job #: 15-235269 Day of Week: Thursday

**Description of Work:**

- Environmental boring w/ 4' macro to 8' BSG + hit refusal
- Environmental boring w 4' macro to 24' BSG
  - one boring to 3 1/2' BSG + refusal
- Conventional boring to 23' GWMW w/ 5' pre packed screen
  - Backfilled w 0 sand + bentonite to grade
- Installed a 10' gwmw with 5' pre pack screen
  - Backfilled + bentonite to grade
- Environmental boring to 24' BSG w/ 4' Macro
  - 1 more boring to 8' + hit refusal
- Converted into 11 1/2' gwmw w/ 5' pre pack screen

Decor all tooling with cleanox + Hexane

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_  
 Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Start Time: 5:00 Leave Shop: 5:30  
 Arrive on Job Site: 7:30 Leave Job Site (1): 4:00P Total Hrs On-Site: 8.5  
 Arrive at Shop: \_\_\_\_\_ Clock Out Time: \_\_\_\_\_ Total Hrs for Day: \_\_\_\_\_

Overtime approved by: \_\_\_\_\_ )

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Adrian Hutchinson</u>	<u>/</u>	<u>/</u>
<u>Nick Turco</u>		
_____		
_____		
_____		
_____		

Equipment Used:	Material Used:
<u>D416</u>	<u>3- 5' pre pack screens</u>
<u>7822DT</u>	<u>4- 2" riser</u>
	<u>5- Bags of 0 sand</u>
	<u>1/2 bucket of bentonite clay</u>

Aarco Signature: X [Signature] Client Signature: X [Signature]

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <u>Ian Hofmann</u>			Samplers Name ( Printed ) <u>EAR</u>			Site/Project Identification <u>DEC - Brooklyn 5200</u>									
Company <u>EAR</u>			P. O. # <u>Site 224015</u>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other: <input type="checkbox"/>			Regulatory Program: <u>NYS DEC</u> DKQP: <input type="checkbox"/>						
Address <u>225 Atlantic Ave</u>			Analysis Turnaround Time Standard <input type="checkbox"/>			ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)						LAB USE ONLY Project No:			
City <u>Patchogue</u>		State <u>NY</u>	Rush Charges Authorized For: 2 Week <input type="checkbox"/>												
Phone <u>(631) 447-6400</u>		Fax	1 Week <input type="checkbox"/>									Sample Numbers			
Other <input checked="" type="checkbox"/> <u>72 Hr</u>															
Sample Identification		Date	Time	Matrix	No. of Cont.	8082A	8260C	9012B	8270D, 8081B 6010C						
<u>SB-37D_0-4</u>		<u>9/28/17</u>		<u>Soil</u>	<u>1</u>	<u>X</u>									
<u>SB-37D_4-8</u>		↓		↓	<u>7</u>	↓	<u>X</u>	<u>X</u>	<u>X</u>						
<u>SB-37D_8-12</u>		↓		↓	<u>7</u>	↓	<u>X</u>	<u>X</u>	<u>X</u>						
<u>SB-37D_12-16</u>		↓		↓	<u>1</u>	↓									
<u>SB-37D_16-20</u>		↓		↓	<u>1</u>	↓									
<u>SB-37D_20-24</u>		↓		↓	<u>7</u>	↓	<u>X</u>	<u>X</u>	<u>X</u>						
<del><u>Raise Blank</u></del>		<u>9/28/17</u>	<u>900</u>	<u>Aq</u>	<u>2</u>	<u>*</u>									
<u>Trip Blank</u>		<u>9/28/17</u>	<u>—</u>	<u>Aq</u>	<u>2</u>		<u>X</u>								
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH					Soil:		<u>1</u>	<u>6</u>	<u>1</u>	<u>1</u>					
6 = Other <u>TERRA COLE</u> , 7 = Other <u>    </u>					Water:		<u>1</u>	<u>2</u>							

(32)

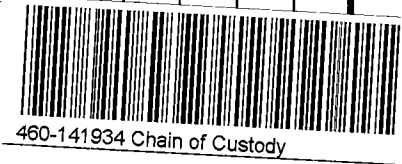
### Special Instructions

Water Metals Filtered (Yes/No)?     

Relinquished by <u>[Signature]</u>	Company <u>EAR</u>	Date / Time <u>9/28/17 1410</u>	Received by <u>[Signature]</u>	Company <u>Tanya</u>
Relinquished by	Company	Date / Time	Received by	Company
2)			2)	
Relinquished by	Company	Date / Time	Received by	Company
3)			3)	
Relinquished by	Company	Date / Time	Received by	Company
4)			4)	

## CHAIN OF CUSTODY / ANALYSIS REQUEST

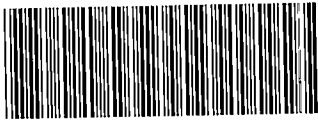
Name (for report and invoice) <b>Ian Hofmann</b>		Samplers Name (Printed) <b>EAR</b>			Site/Project Identification <b>DEC-Brooklyn 5200</b>									
Company <b>EAR</b>		PO# <b>Site 224015</b>			State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:				Regulatory Program: <b>NYSDEC</b> DKQP: <input type="checkbox"/>					
Address <b>225 Atlantic Ave</b>		Analysis Turnaround Time Standard <input type="checkbox"/>			ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)							LAB USE ONLY Project No:		
City <b>Patchogue</b> State <b>NY</b>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>			<b>1-Day RUSH</b>								Job No: <b>141934</b>	
Phone <b>(631) 447-6400</b> Fax		1 Week <input type="checkbox"/>											Sample Numbers	
Other <input checked="" type="checkbox"/> <b>24 HR</b>														
Sample Identification	Date	Time	Matrix	No. of Cont.										
<b>SB-38D_04</b>	<b>9/28/17</b>	<b>1223</b>	<b>Soil</b>	<b>1</b>	<b>X</b>								<b>1</b>	
<b>SB-38D_12-16</b>	<b>↓</b>	<b>1246</b>	<b>↓</b>	<b>1</b>	<b>↓</b>								<b>2</b>	
<b>SB-38D_16-20</b>	<b>↓</b>	<b>1303</b>	<b>↓</b>	<b>1</b>	<b>↓</b>								<b>3</b>	
<b>Rinse Blank</b>	<b>9/28/17</b>	<b>800</b>	<b>Aq</b>	<b>2</b>	<b>X</b>									
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil:	<b>1</b>									
6 = Other _____, 7 = Other _____				Water:	<b>1</b>									



**Special Instructions** Category B deliverables requested Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <b>John Yeh</b>	Company <b>EAR</b>	Date / Time <b>9/28/17 2030</b>	Received by <b>1) EAR Sample Fridge</b>	Company <b>EAR</b>
Relinquished by <b>2) EAR Sample Fridge</b>	Company <b>EAR</b>	Date / Time <b>9/29/17 0650</b>	Received by <b>2) D. J. C. C.</b>	Company <b>EAR</b>
Relinquished by <b>3) D. J. C. C.</b>	Company <b>EAR</b>	Date / Time <b>9/29/17 0650</b>	Received by <b>3) T. A.</b>	Company <b>T. A.</b>
Relinquished by <b>4) T. A.</b>	Company <b>T. A.</b>	Date / Time <b>9/29/17 17:00</b>	Received by <b>4) Van Linn</b>	Company <b>T. A.</b>

## CHAIN OF CUSTODY / ANALYSIS REQUEST

Name ( for report and invoice ) <b>Ian Hofmann</b>		Samplers Name ( Printed ) <b>EAR</b>		Site/Project Identification <b>DEC - Brooklyn 5200</b>							
Company <b>EAR</b>		P.O.# <b>Site #224015</b>		State (Location of site): NJ: <input type="checkbox"/> NY: <input checked="" type="checkbox"/> Other:		Regulatory Program: <b>NJ/DEC</b> DKQP: <input type="checkbox"/>					
Address <b>225 Atlantic Ave</b>		Analysis Turnaround Time Standard <input type="checkbox"/>		ANALYSIS REQUESTED (ENTER 'X' BELOW TO INDICATE REQUEST)				LAB USE ONLY Project No:			
City <b>Patchogue</b> State <b>NY</b>		Rush Charges Authorized For: 2 Week <input type="checkbox"/>		<b>SHORT HOLD</b>	<b>8260C</b>	<b>8082A</b>	<b>9012B</b>	<b>8270D 6010C</b>	<b>8081B</b>	Job No: <b>141938</b>	
Phone <b>(631) 447-6400</b> Fax		1 Week <input type="checkbox"/>								Sample Numbers	
Other <input checked="" type="checkbox"/> <b>72HR</b>		No. of.									
		Cont.									
Sample Identification	Date	Time	Matrix	No. of.							
<b>SB-38D_4-8</b>	<b>9/28/17</b>	<b>1228</b>	<b>Soil</b>	<b>7</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>		<b>1</b>	
<b>SB-38D_8-12</b>	<b>↓</b>	<b>1235</b>	<b>↓</b>	<b>7</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>		<b>2</b>	
<b>SB-38D_20-24</b>	<b>↓</b>	<b>1320</b>	<b>↓</b>	<b>7</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>	<b>↓</b>		<b>3</b>	
 460-141940 Chain of Custody											
Preservation Used: 1 = ICE, 2 = HCl, 3 = H <sub>2</sub> SO <sub>4</sub> , 4 = HNO <sub>3</sub> , 5 = NaOH				Soil: <b>6 1 1</b>							
6 = Other <b>Tellacore</b> 7 = Other				Water: <b>---</b>							

**Special Instructions** Category B deliverables requested Water Metals Filtered (Yes/No)? \_\_\_\_\_

Relinquished by <b>[Signature]</b>	Company <b>EAR</b>	Date / Time <b>9/28/17 2030</b>	Received by <b>1) EAR Sample Fridge</b>	Company <b>EAR</b>
Relinquished by <b>2) EAR Sample Fridge</b>	Company <b>EAR</b>	Date / Time <b>9/29/17 0650</b>	Received by <b>2) [Signature]</b>	Company <b>EAR</b>
Relinquished by <b>3) [Signature]</b>	Company <b>EAR</b>	Date / Time <b>9/29/17 0650</b>	Received by <b>3) [Signature]</b>	Company <b>T.A.</b>
Relinquished by <b>4) [Signature]</b>	Company <b>T.A.</b>	Date / Time <b>9/29/17 1710</b>	Received by <b>4) [Signature]</b>	Company <b>T.A.</b>

Laboratory Certifications: New Jersey (12028), New York (11452), Pennsylvania (68-522), Connecticut (PH-0200), Rhode Island (132).

TAL - 0016 (0715)

Massachusetts (M-NJ312), North Carolina (No. 578)

*2.7/2.4 T.A. & New*



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Friday, 9/29/17**

Weather: 60's (F), partly cloudy

EAR Personnel Onsite: John Lohan (geologist)

Drilling Subcontractor: Aarco

Onsite Time: 06:30

Offsite Time: 13:30

EAR and Aarco were onsite to develop onsite temporary wells installed 9/27-9/28/17. All wells were developed via pumping using a submersible pump. All wells exhibited poor recharge at flow rates from 0.1 to 0.5 gallons per minute. Wells had to be rested periodically to allow for recharge. Due to poor recharge, water quality parameters using a YSI with flow-through cell could not be collected. Turbidity was monitored using a Hach 2100Q nephelometer.

MW-38 was purged of approximately 13 well volumes. Minimal improvement in turbidity was visually observed. Turbidity readings remained out of range of the instrument after 13 well volumes.

MW-36 was purged of 5 well volumes. Minimal improvement of turbidity was visually observed. Turbidity remained over 800 NTU after purging 5 well volumes. Very poor recharge was observed at this location.

MW-37S was purged of approximately 12 well volumes, whereupon turbidity levels were below 50 NTU. MW-37D was purged of approximately 6 well volumes, whereupon turbidity levels were below 50 NTU.

Purge water generated from the development activities were comingled with PAL's onsite wastewater.

Geologist's field notes are attached.

DEC-Brooklyn 5200

9/28/17

Notes cont

- Before starting on SB-38D, as requested by Vinnie, AARCO collected a single macro core from manhole in trench line to ~~test~~ determine if it has a bottom. Concrete refusal @ ~3' bg. contents not described.

- Also as per Vinnie, one extra advancement was performed in vicinity of SB-37D, but closer to the granite ~~stone~~ chimney foundation, just to determine where we'd hit refusal, no samples collected, direct refusal.

Refusal @ 8' bg.

- Test America Consier on site 1410 to collect samples, only samples from SB-37D were relinquished. The others (from SB-38D) were not ready & were brought to EAR & relinquished to EAR sample fridge for pick up on 9/29/17, by T.A. Consier.

AARCO finished final decan & packed up probe by ~1545. off site by 1600

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SPL

BEC-Brooklyn 5200

9/29/17

Start: 430 or: 630 Lunch 1300-1330 off 1330 End

Purpose: O&D development of piezometers installed from 9/27 -> 28/17 by AARCO

On site: SPL (EAR Geo) Adam Hutchinson (AARCO)

Equip: 16 Transit, WLM, VSI, Camera (PSP), Turbidimeter (Pine rental)

Weather: ↑ 60's, Partly cloudy

Notes

- Vinnie B. on site ~645

- AARCO on site @ 700, off @ 1300

- Turbidimeter calibration checked prior to use, all calibration vials registered within 0.5 NTU of labeled value.

- As discussed w/ I. Hofmann, since the installed piezometers frequently need to recharge, VSI will not be used for field screening as the readings wouldn't be able to stabilize before needing to recharge.

- Piezometer development to be performed by AARCO via whale pump

- As discussed w/ I. Hofmann, will not spend more than ~1 hour developing any 1 well, to make sure we get to all ~~points~~ <sup>points</sup> today

1 of 4

110

SPL

DEC-Brooklyn 5200

9/29/17

SB-38D

TWD: 10.97' DTW: 7.13' Stick up: 2.70'

Water column: 3.84' 1 well volume: 0.67 gal

Start: 0805 (NTU) 5 well volume: 3.36 gal

Time	Purge	Turbidity	- Purges for 20-25 seconds
912	~8 gal	overrange	before running dry, purging
917	~8.5 gal	overrange	~1/3 → 1/2 gallon at a time,
923	~9.0	overrange	using 5 min intervals

TWD (End): 10.99' DTW (End): 6.40'

- Water started dark brown & cleared to light brown after ~ 7 gal, then plateaued.

SB-36D

TWD: 8.14' DTW: 5.40' Stick up: 0.35'

Water column: 2.74' 1 well volume: 0.47'

Start @ 935 (NTU) 5 well volume: 2.39

Time	Purge	Turbidity	- Purges for ~ 10 seconds
1019	2.40 gal	802	before running dry, purging
1024	2.50 gal	820	~ 1/4 <sup>th</sup> gallon, at a time, over
1029	2.75 gal	808	5 min intervals

- Water started as dark brown & cleared up to light brown after ~ 2 gal, then plateaued.

TWD (End): 8.14' DTW (End): 7.79'

2 of 4

III

SPL

SB-375

TWD: 10.21' DTW: 5.34' Stick up: 2.31'

Water column: 4.87' 1 well volume: 0.85 gal

Start: 1045 (NTU) 5 well volume: 4.26 gal

Time	Purge	Turbidity	- Purges for ~ 1 min
1103	~6.0 gal	36.4	before running dry, purging
1110	~9.0 gal	8.12	~ 1 gallon at a time, w/ 5
1118	10 gal	17.2	min recharge period

- water started dark reddish brown, light brown @ ~ 6 gal, & ~~steadily~~ transparent @ ~ 8 gal

TWD (End): 10.20' DTW (End): 8.14'

SB-37D

TWD: 23.53' DTW: 15.23' Stick up: 1.82'

Water column: 18.50' 1 well volume: 3.20 gal

Start: 1135 (NTU) 5 well volume: 16.01 gal

Time	Purge	Turbidity	- Purges for ~ 2 min
1223	~16 gal	87.6	before running dry, purging
1230	~18.5	48.1	2 → 2.5 gallons at a time,
1238	~21	47.7	w/ 5 min recharge period

- water started dark reddish brown, light brown @ ~ 10 gal, & transparent @ ~ 16 gal

- water has sweet, solvent odor

TWD (End): 23.55' DTW (End): 12.25'

3 of 4

III

SPL

DEC-Brooklyn 5200

9/29/17

Ables cont

- Before purging each point, & while they were recharging, the points were agitated to suspend any sediments sitting @ the bottom.
- Purge water disposed of in onsite PAL storage containers.





# AARCO Environmental Services Corp.

## DAILY JOB REPORT

Customer: EAR Date: 9/29/17 Weather: 72°F Partly Cloudy  
 Job Location: 5200 1<sup>st</sup> Ave, Brooklyn Job #: 15-235269 Day of Week: Friday

Description of Work:  
 - Developed 4 gwnw's  
 - Filled 1 drum w/ purge water

Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_  
 Manifest # \_\_\_\_\_ Approval # \_\_\_\_\_ Gallons/Yards \_\_\_\_\_

Start Time: 4:00a Leave Shop: 5:15a  
 Arrive on Job Site: 7:00a Leave Job Site (1): 1:00p Total Hrs On-Site: 6  
 Arrive at Shop: \_\_\_\_\_ Clock Out Time: \_\_\_\_\_ Total Hrs for Day: \_\_\_\_\_

Overtime approved by: \_\_\_\_\_ )

Employee:	Prevailing Wage Yes or No:	PW Category:
<u>Adam Hutchinson</u>	<u>/</u>	<u>/</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Equipment Used:	Material Used:
<u>GMC</u>	<u>approx 60' of tubing</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Aarco Signature: [Signature] Client Signature: [Signature]



**Empire Electric  
NYSDEC Site No. 224015  
Daily Field Report**

**Date: Monday, 10/2/17**

Weather: 60's-70's°F+, clear

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician), Mike Ford (survey team), Donald Griffing (survey team)

Onsite Time: 08:45

Offsite Time: 13:00

EAR conducted groundwater sampling activities at a total of three locations: MW-05R, MW-10, and MW-13. A survey team was also onsite to complete well survey/tie-in activities.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 4 aqueous samples (including one blind duplicate). All samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470 (filtered and unfiltered), and total cyanide via 9012. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.

Geologist's field notes and chain of custody forms are attached.

# Chain of Custody Record

Temperature on Receipt \_\_\_\_\_

Drinking Water? Yes  No

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TAL-4124 (1007)

Client <b>EAR</b>		Project Manager <b>Ian Hofmann</b>		Date <b>10/2/17</b>	Chain of Custody Number <b>274469</b>
Address <b>225 Atlantic Ave</b>		Telephone Number (Area Code)/Fax Number		Lab Number <b>46023472</b>	Page <b>1</b> of <b>1</b>

City <b>Patuxent</b>	State <b>NY</b>	Zip Code <b>11772</b>	Site Contact	Lab Contact	Analysis (Attach list if more space is needed)
Project Name and Location (State) <b>DEL. Brookline 5200 (NY)</b>			Carrier/Waybill Number		

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix				Containers & Preservatives							Special Instructions/ Conditions of Receipt							
			Air	Aqueous	Sed.	Soil	Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	8270B-TCL15, PMA		5082A-PCBS	8081B-TCL for Pest	6020A-TAL Metals	6020A-TAL Metals	1826a-Sed/012+10	9101B-Cyanide	M5/MSD
MW-10	10/2/17	945	X				21	3	9	3			X	X	X	X	X	X	X		Category B deliverables requested
MW-05R	10/2/17	1050	X				7	1	3	1			X	X	X	X	X	X			
MW-13	10/2/17	1212	X				7	1	3	1			X	X	X	X	X	X			
MW-X	10/2/17	/																			

Possible Hazard Identification:  Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown

Sample Disposal:  Return To Client  Disposal By Lab  Archive For \_\_\_\_\_ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required:  24 Hours  48 Hours  7 Days  14 Days  21 Days  Other **72HR**

QC Requirements (Specify)

1. Relinquished By <b>John John</b>	Date <b>10/2/17</b>	Time <b>1300</b>	1. Received By <b>[Signature]</b>	Date <b>[Signature]</b>	Time <b>[Signature]</b>
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

### Groundwater Sampling Sheet: Stabilization Purge Method

Site: DEL-BROOKLYN 5200  
 Date: 10/2/17  
 Techs: BCC/AD/SPL

Start Time: 530  
 End Time: 1545

Equipment: see W.O.

[check units on YSI and confirm that parameter is in the correct units]

WELL ID	Well Size (inches)	Total Well Depth (ft.)	Depth to Water (ft.)	Length of Column (ft.)	One Standing Water Well Volume (gal)	Total Gallons Purged (gal)	Time Sampled (hh:mm)	DO (mg/L)	Temp. (°C)	pH	ORP (mV)	Specific Conductance (uS/cm)	NOTES
* MW-10	2	24.01	13.69	10.32	1.80	3.0	945	1.69	17.31	6.95	-91.2	514	
* MW-05R	2	25.10	25.19	12.33	2.15	4.0	1050	0.97	18.08	7.21	-114.3	1331	
MW-13	2	26.17	17.23	8.94	1.56	4.5	1212	1.56	18.35	6.63	85.9	1058	

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

**Purge a minimum of 1 well volume & then wait for stabilization**

Tolerance for stability:  
 Specific Conductance (3%)  
 temperature (3%)  
 pH +/- 0.1 units

Record DO & ORP but **DO NOT** use for stability

Guidelines for Field Screening Values: ☆ MS/MSD collected

pH range = 5 - 9

Temperature range = 10 - 19 (except for VERY warm days - please try to keep purge container cool/shaded area)

DO range = less than 12 (unless very close to a sparge well) \* MW-05R = MW-X

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error.

PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD



## Empire Electric NYSDEC Site No. 224015 Daily Field Report

**Date: Tuesday, 10/3/17**

Weather: 60+°F+, sun & clouds

EAR Personnel Onsite: John Lohan (geologist), Blake Campbell (foreman), Augusto Duchimaza (technician)

Onsite Time: 08:45

Offsite Time: 13:30

EAR conducted groundwater sampling activities at a total of four locations: MW-36, MW-37S, MW-37D, and MW-38. A follow-up post-scarification concrete sample was collected at CB-30.

At CB-30, a drill with a carbide masonry bit was advanced to 3-inches below grade surface (BGS), and pulverized concrete drill spoils were collected for laboratory analysis. All drilling and sampling equipment was decontaminated prior to and following sample collection. Decontamination consisted of gross contaminant removal and hexane rinse followed by Liquinox wash and distilled water rinse.

Groundwater samples were collected utilizing peristaltic pumps and HDPE tubing. A new length of HDPE tubing was utilized at each well. Prior to sample collection, depth-to-water and total well depths were gauged to the nearest 0.01 foot and recorded. A water quality meter was used to monitor water quality parameters. Each monitoring well was purged of at least one standing well volume then screened for pH, temperature, and conductivity until stabilization was reached. Dissolved oxygen concentrations, and oxidation reduction potential (ORP) were recorded as well.

Downhole equipment such as water level meters were decontaminated between each well location. Decontamination consisted of gross contaminant removal, Liquinox wash, and distilled water rinse.

EAR collected a total of 4 aqueous samples and 1 concrete sample. All aqueous samples were submitted to Test America, Inc. (lab provided field courier pickup) for analysis of VOC's via EPA Method 8260C, SVOC's via 8270, pesticides via 8081, PCB's via 8082, TAL metals via 6020/7470 (filtered and unfiltered), and total cyanide via 9012. Concrete sample was submitted for analysis of PCB's via 8082. All samples were submitted for analysis at an expedited 72-hour turnaround time with NYSDEC ASP Category B deliverables requested.



Geologist's field notes and chain of custody forms are attached.

**Groundwater Sampling Sheet: Stabilization Purge Method**

Site: DEC-Brooklyn 5200  
 Date: 10/3/17  
 Techs: AD/BCC/SPL

Start Time: 0530 Equipment: See W.O.  
 End Time: \_\_\_\_\_

WELL ID	Well Size (inches)	Total Well Depth (ft.)	Depth to Water (ft.)	Length of Column (ft.)	One Standing Water Well Volume (gal)	Total Gallons Purged (gal)	Time Sampled (hh:mm)	[check units on YSI and confirm that parameter is in the correct units]					NOTES
								DO (mg/L)	Temp. (°C)	pH	ORP (mV)	Specific Conductance (uS/cm)	
SB-38	2	13.67	8.86	4.91	0.84	2.50	1000	1.78	18.00	8.23	-190.2	800	
SB-36	2	8.49	5.78	2.71	0.47	2.50	1200	1.14	15.10	8.12	70.1	562	
SB-37S	2	12.54	7.65	4.89	0.85	3.0	1040	0.52	14.36	7.02	-96.6	706	
SB-37D	2	25.40	7.09	18.31	3.20	4.0	1125	0.54	12.49	6.35	106.3	1009	

Well Size (inches)	0.5	0.75	1	1.5	2	4	6	8
Multiplier based on 4 well volume	0.06	0.11	0.18	0.42	0.7	2.65	6	10.4
Multiplier based on 1 well volume	0.015	0.0275	0.045	0.105	0.175	0.663	1.5	2.6

**Purge a minimum of 1 well volume & then wait for stabilization**

**Tolerance for stability:**  
 Specific Conductance (3%)  
 temperature (3%)  
 pH +/- 0.1 units

Record DO & ORP but **DO NOT** use for stability

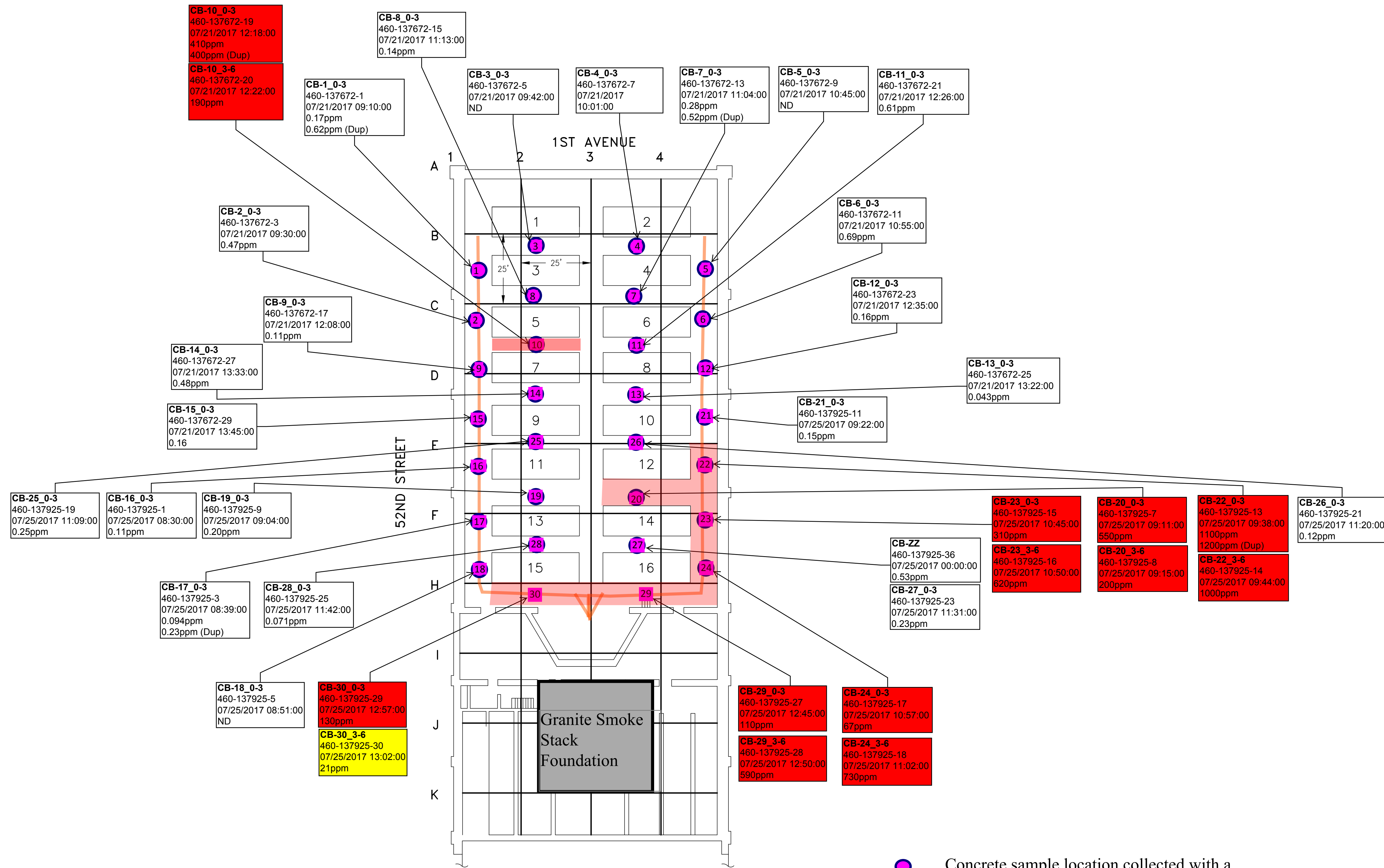
**Guidelines for Field Screening Values:**  
 pH range = 5 - 9  
 Temperature range = 10 - 19 (except for VERY warm days - please try to keep purge container cool/shaded area)  
 DO range = less than 12 (unless very close to a sparge well)

If readings are not in this range please try to recalibrate (except for temp, which cannot be calibrated). If they remain out of range, please do not write the value on the sheet - it is an equipment error.  
**PLEASE CONTACT THE PMs IF THERE IS A PROBLEM. THIS DATA IS IMPORTANT AND INCORRECT DATA IS WORSE THAN NO DATA. WE REALLY APPRECIATE YOUR WORK TO KEEP E.A.R. A TOP COMPANY IN THE FIELD**

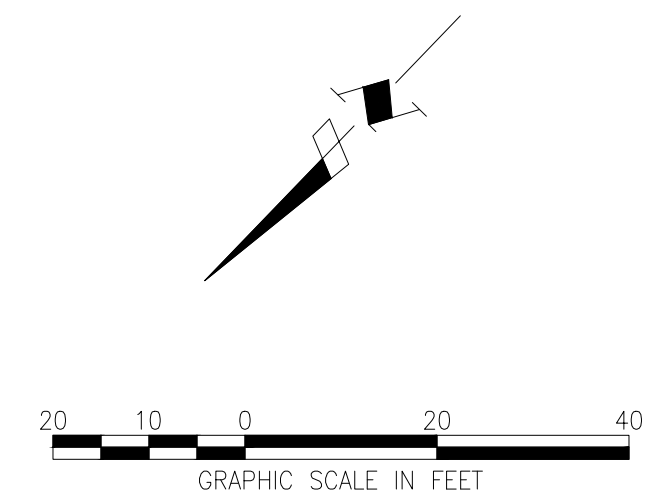




FILE PATH: F:\STATE & LOCAL GOVERNMENT\BUREAU ELECTRIC COMPANY\14490706\FIGURES\FIGURES\2013\PCB REMEDIATION CONFIRMATION SAMPLING\FIGURE 11.MXD, 3/27/2017 11:52 AM



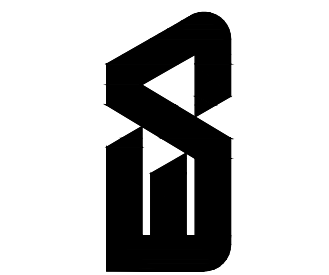
- Concrete sample location collected with a hammer drill to the depth specified by the NYSDEC on site representative. Samples were collected on a 3-ft interval.
- PCBs <1mg/kg
- PCBs >1mg/kg <50mg/kg
- PCBs >50mg/kg



NO.	DATE	DESCRIPTION
0	10/13	FOR BIDS DUE

PCB CONCRETE SAMPLE LOCATIONS

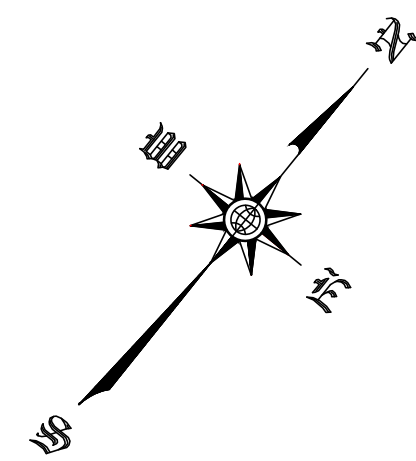
PREPARED BY:  
EA ENGINEERING, P.C.  
AND ITS AFFILIATE  
EA SCIENCE AND TECHNOLOGY



CARRS#	EA #
DESIGN #	1490706
FILE	1490706 Contract.dwg
DRAWN BY	JRM
DATE	OCTOBER 2013
SCALE	AS SHOWN
SS	

# RETAINING WALL

# SMOKE STACK FOUNDATION



- Soil boring with continuous sampling at 2-ft intervals to a minimum depth of 20-ft bgs. and temporary (2" dia.) PVC groundwater well screened from 18-ft to 20-ft bgs
- Temporary (2" dia.) PVC groundwater well screened from 8-ft to 10-ft bgs

### LEGEND:

- EXISTING ELEVATION ..... 20.96  
20.69
- TEST SAMPLE LOCATION

### NOTE:

1. ALL ELEVATIONS SHOWN HEREON REFER TO THE BROOKLYN TOPOGRAPHICAL BUREAU DATUM WHICH IS 2.547 FEET ABOVE MEAN SEA LEVEL AT SANDY HOOK, NEW JERSEY AS ESTABLISHED BY THE U.S. COAST AND GEODETIC SURVEY.
2. ALL SUBSURFACE UTILITIES SHOWN HEREON WERE OBTAINED FROM CITY DEPARTMENTS AND PRIVATE UTILITY COMPANIES AND THE LOCATION OF SAID UTILITIES ARE APPROXIMATE AND NOT GUARANTEED BY THE SURVEYOR. CONSULT APPROPRIATE DEPARTMENT OR COMPANY BEFORE DESIGNING ANY CONNECTIONS.
3. THERE ARE NO VISIBLE STREAMS OR NATURAL WATER COURSES ON THE PROPERTY EXCEPT AS SHOWN ON THE SURVEY.
4. PROPERTY CORNER MONUMENTS WERE NOT PLACED AS PART OF THIS SURVEY.
5. THE STATE EDUCATION LAW PROHIBITS ANY PERSON, UNLESS ACTING UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER, FROM PREPARING ANY DRAWINGS FOR CONSTRUCTION.
6. TEST SAMPLE TABLE SEE SHEET TSL-4.

1 well installed to 8.5' BG

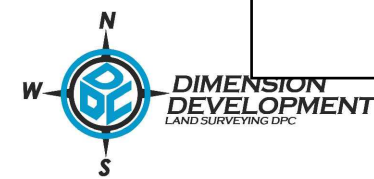
1 well installed to 11' BG. 1 well installed to 24' BG

1 well installed to 11.5' BG

APPROXIMATE EDGE OF CONCRETE

No wells installed

PREPARE BY:



PREPARE FOR:

P.A.L. ENVIRONMENTAL  
1120 QUEENS PLAZA SO.  
LONG ISLAND CITY, NY 11101

MATCH LINE SEE SHEET TSL-2

DESCRIPTION	REVISION	DATE	BY	APR

DATE: AUGUST, 2017
DRAWN BY: I.Z.
CHECKED BY: W.W.

DWG. TITLE: 5200 1st AVENUE BROOKLYN, NEW YORK PARTIAL FOUNDATION EXCAVATION
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DWG. NO. TSL-3
REV.



## Appendix C: QA/QC Summary

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Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Spill # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Soil, Concrete, and Groundwater Analytical Results (ug/Kg, ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8082A

	Location	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
Original Sample	CB-1_0-3	<73	<73	<73	<73	<73	<73	170	<73	<73
Blind Duplicate	CB-X	<71	<71	<71	<71	<71	<71	620	<71	<71
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	113.9%	0.0%	0.0%
Original Sample	CB-29PS	<140	<140	<140	<140	<140	<140	1,600	<140	<140
Blind Duplicate	CB-X	<140	<140	<140	<140	<140	<140	1,700	<140	<140
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.1%	0.0%	0.0%
Original Sample	CB-17_0-3	<71	<71	<71	<71	<71	<71	94	<71	<71
Blind Duplicate	CB-XX	<72	<72	<72	<72	<72	<72	230	<72	<72
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	84.0%	0.0%	0.0%
Original Sample	CB-7_0-3	<71	<71	<71	<71	<71	<71	280	<71	<71
Blind Duplicate	CB-Y	<70	<70	<70	<70	<70	<70	520	<70	<70
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	60.0%	0.0%	0.0%
Original Sample	CB-22_0-3	<70000	<70000	<70000	<70000	<70000	<70000	1100000	<70000	<70000
Blind Duplicate	CB-YY	<70000	<70000	<70000	<70000	<70000	<70000	1200000	<70000	<70000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	8.7%	0.0%	0.0%
Original Sample	CB-10_0-3	<38000	<38000	<38000	<38000	<38000	<38000	410,000	<38000	<38000
Blind Duplicate	CB-Z	<76000	<76000	<76000	<76000	<76000	<76000	400,000	<76000	<76000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	2.5%	0.0%	0.0%
Original Sample	CB-27_0-3	<71	<71	<71	<71	<71	<71	230	<71	<71
Blind Duplicate	CB-ZZ	<71	<71	<71	<71	<71	<71	530	<71	<71
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.9%	0.0%	0.0%
Original Sample	SB-2_1-2	<160	<160	<160	<160	<160	<160	2,000	<160	<160
Blind Duplicate	SB-X	<160	<160	<160	<160	<160	<160	2,900	<160	<160
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.7%	0.0%	0.0%
Original Sample	SB-15_1-2	<790000	<790000	<790000	<790000	<790000	<790000	12000000	<790000	<790000
Blind Duplicate	SB-XX	<780000	<780000	<780000	<780000	<780000	<780000	15000000	<780000	<780000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	22.2%	0.0%	0.0%
Original Sample	SB-33_1-2	<850	<850	<850	<850	<850	<850	12,000	<850	<850
Blind Duplicate	SB-XXX	<150	<150	<150	<150	<150	<150	2,100	<150	<150
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	140.4%	0.0%	0.0%
Original Sample	SB-9_1-2	<71	<71	<71	<71	<71	<71	1,500	<71	<71
Blind Duplicate	SB-Y	<72	<72	<72	<72	<72	<72	170	<72	<72
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	159.3%	0.0%	0.0%
Original Sample	SB-14_1-2	<15000	<15000	<15000	<15000	<15000	<15000	99,000	<15000	<15000
Blind Duplicate	SB-YY	<7400	<7400	<7400	<7400	<7400	<7400	140,000	<7400	<7400
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	34.3%	0.0%	0.0%
Original Sample	SB-12_0-1	<20000	<20000	<20000	<20000	<20000	<20000	340,000	<20000	<20000
Blind Duplicate	SB-Z	<200000	<200000	<200000	<200000	<200000	<200000	1100000	<200000	<200000
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	105.6%	0.0%	0.0%
Original Sample	SB-19_1-2	<74	<74	<74	<74	<74	<74	1,100	<74	<74
Blind Duplicate	SB-ZZ	<73	<73	<73	<73	<73	<73	430	<73	<73
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	87.6%	0.0%	0.0%
Original Sample	SB-15_GW*	<2	<2	<2	<2	<2	<2	1.4 J	<2	<2
Blind Duplicate	SB-X*	<4	<4	<4	<4	<4	<4	5.7	<4	<4
Relative Percent Difference		0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%

Notes:

\* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

Empire Electric  
5200 1st Avenue  
Brooklyn, NY  
Spill # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil and Groundwater Analytical Results (ug/Kg, ug/L)  
Relative Percent Difference Analysis of Blind Duplicate Samples  
TestAmerica, Inc.  
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Date Collected	11:25 AM	12:00 AM	8:08 AM	12:00 AM	10:50 AM	12:00 AM			
Time Collected	Soil	Soil	Water	Water	Water	Water			
Matrix									
1,1 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1 Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,1 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2,2 Tetrachloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dibromoethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichlorobenzene	390 J	710 J	n/a	<1	<1	0.0%	38	42	10.0%
1,2 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2,3 Trichlorobenzene	29,000	43,000	38.9%	<1	<1	0.0%	1,400	1,400	0.0%
1,2,4 Trichlorobenzene	120,000	170,000	34.5%	<1	<1	0.0%	5,500	5,300	3.7%
1,3 Dichlorobenzene	210 J	710 J	n/a	<1	<1	0.0%	89	89	0.0%
1,4 Dichlorobenzene	890	1,800	67.7%	<1	<1	0.0%	140	160	13.3%
1,4-Dioxane	<24000	<42000	0.0%	<0.4	<0.4	0.0%	<1300	<1300	0.0%
2-Hexanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
4-Methyl-2-Pentanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Acetone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Benzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromodichloromethane	<480	<850	0.0%	0.19 J	0.20 J	n/a	<25	<25	0.0%
Bromoform	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromomethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
c 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Disulfide	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Tetrachloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chlorobenzene	<480	<850	0.0%	<1	<1	0.0%	8.40 J	8.50 J	n/a
Chloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chloroform	<480	<850	0.0%	3.6	3.6	0.0%	<25	<25	0.0%
Chloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
cis-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane, methyl-	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dichlorodifluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Ethylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Freon 113	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Isopropylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
m + p Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Methyl acetate	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methyl Ethyl Ketone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methylene Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
o-Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Styrene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t butylmethylether	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Tetrachloroethene	<480	<850	0.0%	6.9	7	1.4%	<25	<25	0.0%
Toluene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Total BTEX	<2400	<4250	0.0%	<5	<5	0.0%	<125	<125	0.0%
trans-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Spill # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Soil and Groundwater Analytical Results (ug/Kg, ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
Date Collected	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Time Collected	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Soil	Soil		Water	Water		Water	Water	
Trichloroethylene	<480	<850	0.0%	0.71 J	0.80 J	n/a	<25	<25	0.0%
Trichlorofluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Vinyl Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Notes:

\* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

Empire Electric  
 5200 1st Avenue  
 Brooklyn, NY  
 Spill # 224015



ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water	Water	Water		
1,1-Biphenyl	<10	<10	0.0%	<10	<10	0.0%
1,2,4,5-Tetrachlorobenzene	<10	<10	0.0%	24	24	0.0%
2,3,4,6-Tetrachlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4,5-Trichlorophenol	<10	<10	0.0%	1.80 J	1.60 J	n/a
2,4,6-Trichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dimethylphenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2,4-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2,6-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2-Chloronaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Chlorophenol	<10	<10	0.0%	<10	<10	0.0%
2-Methyl-4,6-dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2-Methylnaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
2-Nitrophenol	<10	<10	0.0%	<10	<10	0.0%
3,3-Dichlorobenzidine	<10	<10	0.0%	<10	<10	0.0%
3-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Bromophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Chloro-3-methylphenol	<10	<10	0.0%	<10	<10	0.0%
4-Chloroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Chlorophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Nitrophenol	<21	<20	0.0%	<21	<21	0.0%
Acenaphthene	<10	<10	0.0%	<10	<10	0.0%
Acenaphthylene	<10	<10	0.0%	<10	<10	0.0%
Acetophenone	<10	<10	0.0%	<10	<10	0.0%
Anthracene	<10	<10	0.0%	<10	<10	0.0%
Atrazine	<2.1	<2	0.0%	<2.1	<2.1	0.0%
Benzaldehyde	<10	<10	0.0%	<10	<10	0.0%
Benzo(a)anthracene	<1	<1	0.0%	<1	<1	0.0%
Benzo(a)pyrene	<1	<1	0.0%	<1	<1	0.0%
Benzo(b)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
Benzo(g,h,i)perylene	<10	<10	0.0%	<10	<10	0.0%
Benzo(k)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroethoxy)methane	<10	<10	0.0%	<10	<10	0.0%
bis(2-Chloroethyl)ether	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroisopropyl)ether	<10	<10	0.0%	<10	<10	0.0%
bis(2-Ethylhexyl)phthalate	<2.1	<2	0.0%	1.30 J	1.30 J	n/a
Butylbenzylphthalate	<10	<10	0.0%	<10	<10	0.0%
Caprolactam	<10	<10	0.0%	<10	<10	0.0%
Carbazole	<10	<10	0.0%	<10	<10	0.0%
Chrysene	<2.1	<2	0.0%	<2.1	<2.1	0.0%

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ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
Date Collected	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Time Collected	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
Dibenzo(a,h)anthracene	<1	<1	0.0%	<1	<1	0.0%
Dibenzofuran	<10	<10	0.0%	<10	<10	0.0%
Diethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Dimethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-butylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-octylphthalate	<10	<10	0.0%	<10	<10	0.0%
Fluoranthene	<10	<10	0.0%	<10	<10	0.0%
Fluorene	<10	<10	0.0%	<10	<10	0.0%
Hexachlorobenzene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorobutadiene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorocyclopentadiene	<10	<10	0.0%	<10	<10	0.0%
Hexachloroethane	<1	<1	0.0%	<1	<1	0.0%
Indeno(1,2,3-cd)pyrene	<1	<1	0.0%	<1	<1	0.0%
Isophorone	<10	<10	0.0%	<10	<10	0.0%
Naphthalene	<10	<10	0.0%	<10	<10	0.0%
Nitrobenzene	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodi-N-Propylamine	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodiphenylamine	<10	<10	0.0%	<10	<10	0.0%
o-cresol	<10	<10	0.0%	<10	<10	0.0%
p-cresol	<10	<10	0.0%	<10	<10	0.0%
Pentachlorophenol	<21	<20	0.0%	<21	<21	0.0%
Phenanthrene	<10	<10	0.0%	<10	<10	0.0%
Phenol (total)	<10	<10	0.0%	<10	<10	0.0%
Pyrene	<10	<10	0.0%	<10	<10	0.0%

Notes:  
 n/a - Not applicable due to estimated value  
 TICs not included in RPD analysis



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ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW6020A, SW7470A

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X		SB-15_GW	SB-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017		8/9/2017	8/9/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM		10:40 AM	12:00 AM	
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	
Aluminum	73.4	65.5	11.4%	130	140	7.4%	<40	<40	0.0%
Antimony	1 J	0.90 J	n/a	0.64 J	0.81 J	n/a	<2	<2	0.0%
Arsenic	<2	<2	0.0%	<2	1 J	n/a	5.4	7	25.8%
Barium	128	122	4.8%	89	92.8	4.2%	140	142	1.4%
Beryllium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Cadmium	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Calcium	59,100	56,200	5.0%	65,000	65,900	1.4%	46,800	49,900	6.4%
Chromium (total)	9.7	9.4	3.1%	<4	<4	0.0%	<4	<4	0.0%
Cobalt	<4	<4	0.0%	<4	<4	0.0%	<4	<4	0.0%
Copper	2 J	1.70 J	n/a	<4	<4	0.0%	1.50 J	<4	n/a
Iron	135	97.90 J	n/a	188	204	8.2%	44.80 J	131	n/a
Lead	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%
Magnesium	7,340	7,060	3.9%	10,500	10,500	0.0%	9,380	10,200	8.4%
Manganese	13.6	4.90 J	n/a	2,480	2,470	0.4%	575	656	13.2%
Mercury	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%
Nickel	<4	<4	0.0%	2.50 J	2.30 J	n/a	<4	<4	0.0%
Potassium	8,020	7,600	5.4%	12,400	12,400	0.0%	22,300	24,000	7.3%
Selenium	<10	<10	0.0%	<10	<10	0.0%	1.20 J	1.50 J	n/a
Silver	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Sodium	1060000	1030000	2.9%	202,000	203,000	0.5%	30,700	32,500	5.7%
Thallium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Vanadium	<4	<4	0.0%	<4	<4	0.0%	9.2	12.7	32.0%
Zinc	<16	<16	0.0%	<16	<16	0.0%	<16	<16	0.0%

Notes:  
 Analytical results for samples collected 8/9/17 are for dissolved metals.  
 n/a - Not applicable due to estimated value(s)

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ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Rinsate Blank Sample Analytical Summary (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK
Date Collected	7/6/2017	7/7/2017	7/10/2017	7/21/2017	7/25/2017	8/9/2017	9/21/2017	9/28/2017
Time Collected	8:30 AM	8:30 AM	8:00 AM	8:30 AM	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Aroclor 1016	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1221	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1242	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1248	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1254	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1260	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1262	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1268	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4

Rinsate Blank Sample Analytical Summary (ng/L)

TestAmerica, Inc.

Methods: E537-LL

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Perfluorobutanesulfonic acid (PFBS)	<2
Perfluoroheptanoic acid (PFHpA)	<2
Perfluorohexanesulfonic acid (PFHxS)	<2
perfluorononanoic acid (PFNA)	<2
perfluorooctanesulfonic acid (PFOS)	<2
perfluorooctanoic acid (PFOA)	<2

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Rinsate Blank Sample Analytical Summary  
 (ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
1,1 Dichloroethane	<1
1,1 Dichloroethene	<1
1,1,1 Trichloroethane	<1
1,1,2 Trichloroethane	<1
1,1,2,2 Tetrachloroethane	<1
1,2 Dibromoethane	<1
1,2 Dichlorobenzene	<1
1,2 Dichloroethane	<1
1,2 Dichloropropane	<1
1,2,3 Trichlorobenzene	<1
1,2,4 Trichlorobenzene	<1
1,3 Dichlorobenzene	<1
1,4 Dichlorobenzene	<1
1,4-Dioxane	<50
2-Hexanone	<5
4-Methyl-2-Pentanone	<5
Acetone	<5
Benzene	0.29 J
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
c 1,3 Dichloropropene	<1
Carbon Disulfide	<1
Carbon Tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
cis-1,2-Dichloroethene	<1
Cyclohexane	<1
Cyclohexane, methyl-	<1

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Rinsate Blank Sample Analytical Summary  
 (ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	<b>RINSE BLANK</b>
Date Collected	<b>7/24/2017</b>
Time Collected	<b>1:40 PM</b>
Dibromochloromethane	<1
Dibromochloropropane	<1
Dichlorodifluoromethane	<1
Ethylbenzene	<b>0.55 J</b>
Freon 113	<1
Isopropylbenzene	<1
m + p Xylene	<b>1.7</b>
Methyl acetate	<5
Methyl Ethyl Ketone	<5
Methylene Chloride	<1
o-Xylene	<b>0.51 J</b>
Styrene	<1
t 1,3 Dichloropropene	<1
t butylmethylether	<1
Tetrachloroethene	<1
Toluene	<b>3</b>
Total BTEX	<b>6</b>
trans-1,2-Dichloroethene	<1
Trichloroethylene	<1
Trichlorofluoromethane	<1
Vinyl Chloride	<1

Notes:

J - Indicates an estimated value below laboratory reporting limits.

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Spill # 224015



ENVIRONMENTAL  
ASSESSMENT &  
REMEDIATIONS

Soil and Groundwater Analytical Results (ug/Kg, ug/L)  
Relative Percent Difference Analysis of Blind Duplicate Samples  
TestAmerica, Inc.  
Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Date Collected	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Time Collected	Soil	Soil		Water	Water		Water	Water	
Matrix									
1,1 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1 Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,1 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2 Trichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,1,2,2 Tetrachloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dibromoethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichlorobenzene	390 J	710 J	n/a	<1	<1	0.0%	38	42	10.0%
1,2 Dichloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2 Dichloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
1,2,3 Trichlorobenzene	29,000	43,000	38.9%	<1	<1	0.0%	1,400	1,400	0.0%
1,2,4 Trichlorobenzene	120,000	170,000	34.5%	<1	<1	0.0%	5,500	5,300	3.7%
1,3 Dichlorobenzene	210 J	710 J	n/a	<1	<1	0.0%	89	89	0.0%
1,4 Dichlorobenzene	890	1,800	67.7%	<1	<1	0.0%	140	160	13.3%
1,4-Dioxane	<24000	<42000	0.0%	<0.4	<0.4	0.0%	<1300	<1300	0.0%
2-Hexanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
4-Methyl-2-Pentanone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Acetone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Benzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromodichloromethane	<480	<850	0.0%	0.19 J	0.20 J	n/a	<25	<25	0.0%
Bromoform	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Bromomethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
c 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Disulfide	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Carbon Tetrachloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chlorobenzene	<480	<850	0.0%	<1	<1	0.0%	8.40 J	8.50 J	n/a
Chloroethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Chloroform	<480	<850	0.0%	3.6	3.6	0.0%	<25	<25	0.0%
Chloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
cis-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Cyclohexane, methyl-	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dibromochloropropane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Dichlorodifluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Ethylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Freon 113	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Isopropylbenzene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
m + p Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Methyl acetate	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methyl Ethyl Ketone	<2400	<4200	0.0%	<5	<5	0.0%	<130	<130	0.0%
Methylene Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
o-Xylene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Styrene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t 1,3 Dichloropropene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
t butylmethylether	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Tetrachloroethene	<480	<850	0.0%	6.9	7	1.4%	<25	<25	0.0%
Toluene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Total BTEX	<2400	<4250	0.0%	<5	<5	0.0%	<125	<125	0.0%
trans-1,2-Dichloroethene	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Empire Electric  
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ENVIRONMENTAL  
 ASSESSMENT &  
 REMEDIATIONS

Soil and Groundwater Analytical Results (ug/Kg, ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8260C

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	SB-13_4-5	SB-X		MW-02*	MW-X*		MW-05R*	MW-X*	
Date Collected	7/26/2017	7/26/2017		7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Time Collected	11:25 AM	12:00 AM		8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Soil	Soil		Water	Water		Water	Water	
Trichloroethylene	<480	<850	0.0%	0.71 J	0.80 J	n/a	<25	<25	0.0%
Trichlorofluoromethane	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%
Vinyl Chloride	<480	<850	0.0%	<1	<1	0.0%	<25	<25	0.0%

Notes:

\* - Indicates an aqueous sample

n/a - Not applicable due to estimated value

TICs not included in RPD analysis

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Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
1,1-Biphenyl	<10	<10	0.0%	<10	<10	0.0%
1,2,4,5-Tetrachlorobenzene	<10	<10	0.0%	24	24	0.0%
2,3,4,6-Tetrachlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4,5-Trichlorophenol	<10	<10	0.0%	1.80 J	1.60 J	n/a
2,4,6-Trichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dichlorophenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dimethylphenol	<10	<10	0.0%	<10	<10	0.0%
2,4-Dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2,4-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2,6-Dinitrotoluene	<2.1	<2	0.0%	<2.1	<2.1	0.0%
2-Chloronaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Chlorophenol	<10	<10	0.0%	<10	<10	0.0%
2-Methyl-4,6-dinitrophenol	<21	<20	0.0%	<21	<21	0.0%
2-Methylnaphthalene	<10	<10	0.0%	<10	<10	0.0%
2-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
2-Nitrophenol	<10	<10	0.0%	<10	<10	0.0%
3,3-Dichlorobenzidine	<10	<10	0.0%	<10	<10	0.0%
3-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Bromophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Chloro-3-methylphenol	<10	<10	0.0%	<10	<10	0.0%
4-Chloroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Chlorophenyl-phenylether	<10	<10	0.0%	<10	<10	0.0%
4-Nitroaniline	<10	<10	0.0%	<10	<10	0.0%
4-Nitrophenol	<21	<20	0.0%	<21	<21	0.0%
Acenaphthene	<10	<10	0.0%	<10	<10	0.0%
Acenaphthylene	<10	<10	0.0%	<10	<10	0.0%
Acetophenone	<10	<10	0.0%	<10	<10	0.0%
Anthracene	<10	<10	0.0%	<10	<10	0.0%
Atrazine	<2.1	<2	0.0%	<2.1	<2.1	0.0%
Benzaldehyde	<10	<10	0.0%	<10	<10	0.0%
Benzo(a)anthracene	<1	<1	0.0%	<1	<1	0.0%
Benzo(a)pyrene	<1	<1	0.0%	<1	<1	0.0%
Benzo(b)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
Benzo(g,h,i)perylene	<10	<10	0.0%	<10	<10	0.0%
Benzo(k)fluoranthene	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroethoxy)methane	<10	<10	0.0%	<10	<10	0.0%
bis(2-Chloroethyl)ether	<1	<1	0.0%	<1	<1	0.0%
bis(2-Chloroisopropyl)ether	<10	<10	0.0%	<10	<10	0.0%
bis(2-Ethylhexyl)phthalate	<2.1	<2	0.0%	1.30 J	1.30 J	n/a
Butylbenzylphthalate	<10	<10	0.0%	<10	<10	0.0%
Caprolactam	<10	<10	0.0%	<10	<10	0.0%
Carbazole	<10	<10	0.0%	<10	<10	0.0%
Chrysene	<2.1	<2	0.0%	<2.1	<2.1	0.0%

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Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW8270D

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X	
Date Collected	7/27/2017	7/27/2017		10/2/2017	10/2/2017	
Time Collected	8:08 AM	12:00 AM		10:50 AM	12:00 AM	
Matrix	Water	Water		Water	Water	
Dibenzo(a,h)anthracene	<1	<1	0.0%	<1	<1	0.0%
Dibenzofuran	<10	<10	0.0%	<10	<10	0.0%
Diethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Dimethylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-butylphthalate	<10	<10	0.0%	<10	<10	0.0%
Di-n-octylphthalate	<10	<10	0.0%	<10	<10	0.0%
Fluoranthene	<10	<10	0.0%	<10	<10	0.0%
Fluorene	<10	<10	0.0%	<10	<10	0.0%
Hexachlorobenzene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorobutadiene	<1	<1	0.0%	<1	<1	0.0%
Hexachlorocyclopentadiene	<10	<10	0.0%	<10	<10	0.0%
Hexachloroethane	<1	<1	0.0%	<1	<1	0.0%
Indeno(1,2,3-cd)pyrene	<1	<1	0.0%	<1	<1	0.0%
Isophorone	<10	<10	0.0%	<10	<10	0.0%
Naphthalene	<10	<10	0.0%	<10	<10	0.0%
Nitrobenzene	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodi-N-Propylamine	<1	<1	0.0%	<1	<1	0.0%
N-Nitrosodiphenylamine	<10	<10	0.0%	<10	<10	0.0%
o-cresol	<10	<10	0.0%	<10	<10	0.0%
p-cresol	<10	<10	0.0%	<10	<10	0.0%
Pentachlorophenol	<21	<20	0.0%	<21	<21	0.0%
Phenanthrene	<10	<10	0.0%	<10	<10	0.0%
Phenol (total)	<10	<10	0.0%	<10	<10	0.0%
Pyrene	<10	<10	0.0%	<10	<10	0.0%

Notes:  
 n/a - Not applicable due to estimated value  
 TICs not included in RPD analysis



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Groundwater Analytical Results (ug/L)  
 Relative Percent Difference Analysis of Blind Duplicate Samples  
 TestAmerica, Inc.  
 Methods: SW6020A, SW7470A

Location	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference	Original Sample	Blind Duplicate	Relative Percent Difference
	MW-02	MW-X		MW-05R	MW-X		SB-15_GW	SB-X	
	7/27/2017	7/27/2017		10/2/2017	10/2/2017		8/9/2017	8/9/2017	
	8:08 AM	12:00 AM		10:50 AM	12:00 AM		10:40 AM	12:00 AM	
Matrix	Water	Water	Water	Water	Water	Water	Water	Water	
Aluminum	73.4	65.5	11.4%	130	140	7.4%	<40	<40	0.0%
Antimony	1 J	0.90 J	n/a	0.64 J	0.81 J	n/a	<2	<2	0.0%
Arsenic	<2	<2	0.0%	<2	1 J	n/a	5.4	7	25.8%
Barium	128	122	4.8%	89	92.8	4.2%	140	142	1.4%
Beryllium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Cadmium	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Calcium	59,100	56,200	5.0%	65,000	65,900	1.4%	46,800	49,900	6.4%
Chromium (total)	9.7	9.4	3.1%	<4	<4	0.0%	<4	<4	0.0%
Cobalt	<4	<4	0.0%	<4	<4	0.0%	<4	<4	0.0%
Copper	2 J	1.70 J	n/a	<4	<4	0.0%	1.50 J	<4	n/a
Iron	135	97.90 J	n/a	188	204	8.2%	44.80 J	131	n/a
Lead	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%	<1.2	<1.2	0.0%
Magnesium	7,340	7,060	3.9%	10,500	10,500	0.0%	9,380	10,200	8.4%
Manganese	13.6	4.90 J	n/a	2,480	2,470	0.4%	575	656	13.2%
Mercury	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%	<0.2	<0.2	0.0%
Nickel	<4	<4	0.0%	2.50 J	2.30 J	n/a	<4	<4	0.0%
Potassium	8,020	7,600	5.4%	12,400	12,400	0.0%	22,300	24,000	7.3%
Selenium	<10	<10	0.0%	<10	<10	0.0%	1.20 J	1.50 J	n/a
Silver	<2	<2	0.0%	<2	<2	0.0%	<2	<2	0.0%
Sodium	1060000	1030000	2.9%	202,000	203,000	0.5%	30,700	32,500	5.7%
Thallium	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%	<0.8	<0.8	0.0%
Vanadium	<4	<4	0.0%	<4	<4	0.0%	9.2	12.7	32.0%
Zinc	<16	<16	0.0%	<16	<16	0.0%	<16	<16	0.0%

Notes:

Analytical results for samples collected 8/9/17 are for dissolved metals.  
 n/a - Not applicable due to estimated value(s)

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Rinsate Blank Sample Analytical Summary (ug/L)

TestAmerica, Inc.

Methods: SW8082A

Location	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK	RINSE BLANK
Date Collected	7/6/2017	7/7/2017	7/10/2017	7/21/2017	7/25/2017	8/9/2017	9/21/2017	9/28/2017
Time Collected	8:30 AM	8:30 AM	8:00 AM	8:30 AM	8:00 AM	9:00 AM	8:00 AM	8:00 AM
Aroclor 1016	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1221	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1232	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1242	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1248	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1254	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1260	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1262	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Aroclor 1268	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4
Polybrominated biphenyls (total)	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4	<0.41	<0.4

Rinsate Blank Sample Analytical Summary (ng/L)

TestAmerica, Inc.

Methods: E537-LL

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
Perfluorobutanesulfonic acid (PFBS)	<2
Perfluoroheptanoic acid (PFHpA)	<2
Perfluorohexanesulfonic acid (PFHxS)	<2
perfluorononanoic acid (PFNA)	<2
perfluorooctanesulfonic acid (PFOS)	<2
perfluorooctanoic acid (PFOA)	<2

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Rinsate Blank Sample Analytical Summary  
 (ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	RINSE BLANK
Date Collected	7/24/2017
Time Collected	1:40 PM
1,1 Dichloroethane	<1
1,1 Dichloroethene	<1
1,1,1 Trichloroethane	<1
1,1,2 Trichloroethane	<1
1,1,2,2 Tetrachloroethane	<1
1,2 Dibromoethane	<1
1,2 Dichlorobenzene	<1
1,2 Dichloroethane	<1
1,2 Dichloropropane	<1
1,2,3 Trichlorobenzene	<1
1,2,4 Trichlorobenzene	<1
1,3 Dichlorobenzene	<1
1,4 Dichlorobenzene	<1
1,4-Dioxane	<50
2-Hexanone	<5
4-Methyl-2-Pentanone	<5
Acetone	<5
Benzene	0.29 J
Bromochloromethane	<1
Bromodichloromethane	<1
Bromoform	<1
Bromomethane	<1
c 1,3 Dichloropropene	<1
Carbon Disulfide	<1
Carbon Tetrachloride	<1
Chlorobenzene	<1
Chloroethane	<1
Chloroform	<1
Chloromethane	<1
cis-1,2-Dichloroethene	<1
Cyclohexane	<1
Cyclohexane, methyl-	<1

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Rinsate Blank Sample Analytical Summary  
 (ug/L)

TestAmerica, Inc.

Methods: SW8260C

Location	<b>RINSE BLANK</b>
Date Collected	<b>7/24/2017</b>
Time Collected	<b>1:40 PM</b>
Dibromochloromethane	<1
Dibromochloropropane	<1
Dichlorodifluoromethane	<1
Ethylbenzene	<b>0.55 J</b>
Freon 113	<1
Isopropylbenzene	<1
m + p Xylene	<b>1.7</b>
Methyl acetate	<5
Methyl Ethyl Ketone	<5
Methylene Chloride	<1
o-Xylene	<b>0.51 J</b>
Styrene	<1
t 1,3 Dichloropropene	<1
t butylmethylether	<1
Tetrachloroethene	<1
Toluene	<b>3</b>
Total BTEX	<b>6</b>
trans-1,2-Dichloroethene	<1
Trichloroethylene	<1
Trichlorofluoromethane	<1
Vinyl Chloride	<1

Notes:

J - Indicates an estimated value below laboratory reporting limits.