REMEDIAL ACTION PLAN
MANHATTAN DETENTION CENTER
124-125 WHITE STREET
BLOCK 198, LOT 1 AND BLOCK 167, LOT 1
MANHATTAN, NEW YORK COUNTY, NEW YORK
CEQR NUMBER 18DOC001Y

MATRIXNEWORLD

Engineering Progress

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On Behalf of:
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1.0 INTRODUCTION

This Remedial Action Plan (RAP) has been developed by Matrix New World Engineering, Land Surveying, and Landscape Architecture, P.C. (Matrix) as a subconsultant to Perkins Eastman to provide environmental engineering support to the New York City Office of Management and Budget (NYCOMB) for pre-schematic design services for a Capital Project Scope Development (CPSD) study for a Master Plan for a Borough Based NYC Jail System. The CPSD is a comprehensive investigation and assessment of three existing New York City Department of Corrections (NYCDOC) facilities in Manhattan, Brooklyn and Queens, a New York Police Department (NYPD) lot in Bronx, a New York City Department of Transportation (NYCDOT) parking lot in Queens, and a New York governmental office building in Manhattan. NYCOMB, in partnership with the New York City Department of Corrections (DOC), the Mayor's Office of Criminal Justice (MOCJ) and New York City Department of Design and Construction (NYCDDC), has undertaken this study to determine whether the existing NYCDOC facilities and the NYPD lot have the potential to provide detention facilities to support the Mayor's initiative to decrease the jail population on Rikers Island. Matrix is performing environmental investigations to determine if contaminated or hazardous materials are present at the study sites, which may impact the cost of future reconstruction.

This RAP was prepared for the Manhattan Detention Center (MDC) located at 124-125 White Street in the borough of the Manhattan, New York County, New York (the Site). A Site Location Map showing the location of the project area is included as Figure 1. The investigation area covered the entire MDC (the Site), which consists of a sally port and two prison buildings, MDC-North (MDC-N) and MDC-South (MDC-S). This project is being conducted under CEQR 18DOC001Y. This RAP describes the remediation and/or mitigation activities to be implemented at the Site in coordination with the New York City Department of Environmental Protection (NYCDEP) for the purposes of satisfying the requirements of the Uniform Land Use Review Process (ULURP). The site-specific Construction Health and Safety Plan (CHASP) (Appendix A) addresses site-specific hazards, identified contaminants of concern and safety requirements associated with remediation and mitigation activities in accordance with ASTM and Occupational Safety and Health Administration (OSHA) guidelines. The CHASP also includes the contact information for the Site safety personnel.

1.1 Site Location and Current Usage

The Site is located at 124-125 White Street, Manhattan, New York County, New York and is identified as Block 198, Lot 1 and Block 167, Lot 1 on the New York City Tax Map. The Site is geographically located at 40° 43' 0.72" north latitude and 74° 0' 1.11" west longitude on the Jersey City and Brooklyn, New Jersey, U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles. A Regional Location Map and Site Map are presented as Figures 1 and 2. The Site consists of approximately 1.76-acres (76,750 square feet). Elevation of the property above mean sea level (amsl) ranges from 13 to 15 feet amsl.

The Manhattan Detention Center (MDC) is a two-tower prison complex addressed at 124-125 White Street (a portion of Block 167, Lot 1 and Block 198, Lot 1) in Manhattan, New York (Site). The approximately 1.76-acre (76,750 square foot) Site is improved with the nine-story, 163,072 square-foot MDC-N tower built in 1989 and the thirteen-story, 224,729 square-foot MDC-S tower built in 1941. Both towers contain full cellars and MDC-S has a partial sub-cellar. Both towers also house Sally Ports which are used for material and waste transfers. The towers are connected by a sub-grade tunnel as well as two bridges, one located on the third floor and another on the ninth floor. The two towers are separated by White Street which runs in an east-west direction across the Site. In addition, four leaseholds are located on the 1st floor of MDC-N with storefronts along Centre Street and Baxter Street, Including China Village Restaurant, Metropharm Inc., Jaya Inc., Nha Trang Centre Vietnamese Restaurant, and Centre Finest Deli. The Site and surrounding vicinity are located within a C6 zoning district which allows for residential, commercial, mixed used and public spaces. A detailed surrounding land usage is shown as Figure 2.

1.2 Site Geology and Hydrology

As part of a concurrent geotechnical investigation at the Site conducted by Mueser Rutledge Consulting Engineers (MRCE), Site soils were characterized with an upper layer of urban fill, ranging from approximately 18.5 to 19 feet thick, overlying layers of sand, peat, organic silty clay, clay, sand, glacial till, decomposed rock, and bedrock at a depth ranging from 91.5 to 102.5 feet below ground surface (ft-bgs). MRCE encountered groundwater at approximately 15 ft-bgs, near the southeast corner of the Site. During Matrix's subsurface investigation, groundwater was observed ranging from approximately 18 to 23 ft-bgs.

1.3 Proposed Redevelopment Plan

While the development plans are not finalized, if selected to remain in the program, the Site building will be demolished, and a new jail constructed in its place. The proposed building will have multiple basement levels extending to a depth of 45 feet below ground surface (ft-bgs).

2.0 PRIOR INVESTIGATIONS

The following environmental work plans and reports were developed for the Site:

Phase I Environmental Assessment Report – 124-125 White Street, New York, New York, Matrix New World Engineering, May 2018: A Phase I Environmental Site Assessment (ESA) of the Site was prepared by Matrix in May 2018 in accordance with ASTM Standard E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment. The ESA identified multiple Recognized Environmental Conditions (RECs): Floor Drains in MDC-S Basement Mechanical Room (REC-1), A 10,000-gallon fiberglass reinforced plastic (FRP) diesel fuel UST (REC-2), French Drains at MDC-S AST Area (REC-3), Inaccessible Areas (REC-4), Former Filling Station (REC-5), and a vapor encroachment condition (REC-6).

Proposal for Environmental Testing Phase II Investigation – 124-125 White Street, New York, New York, Matrix New World Engineering, August 2018: Matrix proposed performing a hazardous materials survey and sampling at the facility; advancing soil borings to collect soil samples; advancement of temporary well points and collection of groundwater samples; and collection of soil gas samples as part of a vapor intrusion investigation. The soil and soil vapor samples were collected to investigate the RECs identified in the Phase I ESA and for general Site characterization.

Phase II Environmental Site Assessment Report– 124-125 White Street, New York, New York, Matrix New World Engineering, June 2019: Over two separate mobilizations, Matrix advanced a total of twelve (12) soil borings and collected (15) soil samples, eight (8) soil vapor samples and installed four (4) temporary wells to collect four (4) groundwater samples in order to characterize soils, soil vapor and groundwater in the project area and determine whether potentially contaminated soils and/or groundwater will be disturbed/encountered during redevelopment activities.

In addition, Matrix also performed a Hazardous Materials Investigation, to identify asbestos-containing material (ACM), lead-based paint (LBP), polychlorinated biphenyl (PCB) caulking/sealant and other potentially hazardous materials present within the project limits that is being assessed as part of the overall New York City Borough-Based NYC Jail System Project (Project). The purpose of this assessment was to locate, identify, characterize (friability), and quantify suspect hazardous materials present within the facility, as well as assess the overall condition(s) of suspect hazardous materials. Removal/handling of these materials is not addressed by this RAP.

Soil Analytical Results

- Soil/fill samples collected during the Phase II Investigation did not indicate evidence of a petroleum spill or other release in the potential construction area. No volatile organic compounds (VOCs) were detected the soil samples at concentrations exceeding the New York State Department of Environmental Conservation (NYSDEC) soil cleanup objectives (SCOs) aside from acetone, a common laboratory contaminant. The analytical results indicated the exceedance of semi volatile organic compounds (SVOCs), mainly polycyclic aromatic hydrocarbon compounds (PAHs) including acenaphthene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, fluoranthene, fluorene, indeno(1,2,3-cd)pyrene, naphthalene, phenanthrene, and pyrene above 6 NYCRR Part 375 Soil Cleanup Objectives for Restricted Residential Use (RRSCOs). Historic fill was commonly used as backfill in the city to raise and level land, and these soils typically exhibit elevated concentrations of SVOCs and metals, as well as occasional pesticides and other contaminants, consistent with the analytical results from Site samples. The elevated metals results at deeper depths are likely naturally occurring metals found in regional soils due to the lack of co-located pesticides and SVOC detections.

Groundwater Analytical Results

- Of the five groundwater samples, one VOC, chloroform, was detected at concentrations exceeding the NYS TOGS Class GA Groundwater standards at GW-06, detected at 7.2 mg/L above the NYS TOGS standard of 7 mg/L. The analytical results indicated the exceedance of semi volatile organic compounds (SVOCs), mainly polycyclic aromatic hydrocarbon compounds (PAHs) in three of the five samples (GW-01, GW-05 and GW-06) including bis(2-ethylhexyl)phthalate, benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, and indeno(1,2,3-cd)pyrene. These SVOC compounds are frequently found in urban fill materials. Several metals were detected at concentrations above standards or guidance values in the unfiltered groundwater sample. Due to the high turbidity inherent to temporary wellpoint sampling, groundwater samples were lab filtered and four dissolved metals (antimony, iron, magnesium, and manganese) remained in exceedance of the NYS TOGS Class GA Groundwater Standards across two of the samples (GW-05 and GW-07).

Soil Vapor Analytical Results

- There were no sample concentrations detected exceeding the NYSDOH Soil Vapor Guidance values.

Hazardous Materials Survey Results

The findings associated with potential hazardous building materials on-site are provided below:

- An expansion joint caulking material at the North Tower Recreational Area has been identified and confirmed as ACM (i.e. greater than 1% asbestos). This material (as well as other materials visually assessed but not yet sampled for asbestos content) should be further evaluated as to the level of impact and thereby corresponding remediation response required as related to the selected design/construction option chosen for this site.
- For purposes of this project, it is recommended that all surface coatings associated with each of the Site structures and ancillary components be assumed to contain a lead concentration above the current U.S. Consumer Product Safety Commission (CPSC) threshold for lead-containing paint (LCP) of greater than 0.009% by weight (16 CFR 1303.2 (b)(2)); and managed during construction in accordance with the OSHA Lead in Construction Standard (29 CFR 1926.62).
- A total of five suspect PCB containing caulking materials were analyzed during Matrix's initial survey efforts., however samples results are considered PCB-Free based on the TSCA classifications.
- Matrix inspected and documented building materials which were observable and accessible within the available limits of the project. It is possible that additional suspect and potentially hazardous building materials may exist within spaces which were not observable or accessible at the time of the scoping assessment. These materials should be segregated and properly disposed/recycled prior to construction/demolition activities that would likely disturb them.

3.0 DESCRIPTION OF CONSTRUCTION MEASURES

The investigation performed by Matrix over 2018 and 2019 encountered soil and fill materials containing concentrations of SVOCs, PCBs and metals, which exceed the regulatory guidelines, specifically the NYSDEC RRSCOs.

Remedial and mitigation measures described herein will be performed in accordance with applicable laws and regulations, and the site-specific CHASP (Appendix A), and will be protective of public health and/or the environment for the intended use.

The proposed plan achieves all of the remedial action goals established for the project. The proposed remedial action is effective in both the short-term and long-term and reduces mobility, toxicity and volume of contaminants and uses standard methods that are well established in the industry.

The proposed remedial action will consist of:

1. Construction and maintenance of an engineered composite cover, which depending on the final design, may consist of asphalt pavement, building slab, and open space cover such as clean soil with vegetation to prevent human exposure to residual soil/fill remaining under the Site.
2. All known or found underground storage tanks (USTs) and/or aboveground storage tanks (ASTs), including dispensers, piping, and fill-ports, will be properly removed/closed in accordance with all applicable NYSDEC regulations.
3. Installation of a minimum 20-mil vapor barrier (Preprufe® 300R or NYCDEP-approved equivalent) beneath the building slab and outside of the below-grade foundation sidewalls. A manufacturer's specification for the Preprufe® 300R vapor barrier is included as Appendix B. If a different but equivalent vapor barrier is selected, the manufacturer's specification will be submitted to NYCDEP for approval.
4. Import of materials to be used for backfill and cover in compliance with this plan and in accordance with applicable laws and regulations.
5. Transportation and off-Site disposal of all soil/fill material at permitted facilities in accordance with applicable laws and regulations for handling, transport, and disposal, and this plan. Sampling and analysis of excavated media as required by disposal facilities. Appropriate segregation of excavated media onsite.
6. Universal waste, such as fluorescent light fixtures/bulbs, stored chemicals, and other potentially hazardous materials identified during the hazardous materials survey will be segregated and properly disposed/recycled in accordance with appropriate local, state and federal regulations prior to construction/demolition activities that would likely disturb them. No ACM or PCBs were identified during the hazardous materials survey. It is recommended that all painted surface coatings be assumed to

contain a detectable concentration of lead and treated utilizing the appropriate lead safe work practices. Any additional suspect materials that may be encountered during proposed construction activities must be assumed to contain hazardous materials, unless further sampling and lab analysis proves otherwise.

7. Implementation of storm-water pollution prevention measures in compliance with applicable laws and regulations.
8. Submission of a Remedial Closure Report (RCR) that describes the remedial activities, certifies that the remedial requirements have been achieved, and describes any Engineering and Institutional Controls implemented at the Site, and lists any changes from this RAP.
9. Management, removal and/or disposal of hazardous materials, including any ACM, LBP, PCBs will be in accordance with applicable city, state and Federal regulations.

3.1 Soil Excavation and Disposal

3.1.1 Soil Disposal

Soil/fill or other excavated media that is transported off-Site for disposal will be sampled in a manner required by the receiving facility, and in compliance with applicable laws and regulations. Soils proposed for reuse on-Site will be managed as defined in this plan.

Soil disposal will be in accordance with federal, state and local requirements, including those for hazardous waste, industrial waste, petroleum contaminated soil, construction and demolition debris, etc., as applicable.

3.1.2 Handling of Potentially Contaminated Soil

If sludges, soil or sediment showing evidence of potential contamination, such as discoloration, staining, or odors are encountered during excavation activities, the following procedures will be implemented:

1. A spill will be reported to the NYSDEC Spill Hotline (800-457-7362), as necessary.
2. The suspect soil will be sampled for laboratory analyses in accordance with NYSDEC DER-10. Additional sample analysis may be required by disposal facilities.
3. If the suspect soil is contaminated based on sampling results, it will be excavated and removed in accordance with the stockpiling and/or direct-loading procedures presented below. Soils intended for off-site disposal will be disposed in accordance with applicable federal, state and local requirements and tested in accordance with the requirements of the receiving facility.
4. The excavated soil will then be disposed of in accordance with all applicable federal, state and local regulations.

5. The excavation will be enlarged vertically and horizontally until no evidence of contamination is noted in the base or sidewalls of the excavation or until groundwater or bedrock are encountered. Post-excavation endpoint samples will be collected from the sides and bottom of the excavated area, as required by the NYSDEC DER-10. If post-excavation samples exceed action levels, then additional excavation will be performed, as warranted. New York State Department of Health Environmental Laboratory Accreditation Program (ELAP) certified labs will be used for all end-point sample analyses. Quality Assurance/Quality Control (QA/QC) samples will be collected, including trip blanks, field blanks and field duplicates. The sampling frequency will be described in the revised RAP when design plans are finalized.
6. Copies of correspondence with disposal facilities concerning classification of materials, testing results, and permits/approvals will be maintained and will be submitted to NYSDEC in a Spill Closure Report.

When applicable, hazardous waste manifest forms and/or non-hazardous waste records will be completed as required by the appropriate regulatory agencies for verifying the type and quantity of each load in units of volume and weight.

3.1.3 Stockpile Methods

Excavated soil from suspected areas of contamination (e.g., hot spots, USTs, drains, etc.) will be stockpiled separately and will be segregated from clean soil and construction materials. Stockpiles will be used only when necessary and will be removed as soon as practicable. While stockpiles are in place, they will be inspected daily, and before and after every storm event. Excavated soils will be stockpiled on, at minimum, double layers of 8-mil minimum sheeting, will be kept covered at all times with appropriately anchored plastic tarps, and will be routinely inspected. Broken or ripped tarps will be promptly replaced.

All stockpile activities will be compliant with applicable laws and regulations. Soil stockpile areas will be appropriately graded to control run-off in accordance with applicable laws and regulations. Stockpiles of excavated soils and other materials shall be located at least of 50 feet from the property boundaries, where possible. Hay bales or equivalent will surround soil stockpiles except for areas where access by equipment is required. Silt fencing and hay bales will be used as needed near catch basins, surface waters and other discharge points.

3.2 Off-Site Materials Transport

Loaded vehicles leaving the Site will comply with all applicable materials transportation requirements (including appropriate covering, manifests, and placards) in accordance with applicable laws and regulations, including use of licensed haulers in accordance with 6 NYCRR Part 364. If loads contain wet material capable of causing leakage from trucks, truck liners will be used. Queuing of trucks will be performed on-Site, when possible in order to minimize off Site disturbance. Off-Site queuing will be minimized.

All vehicles leaving the Site will be inspected to ensure that soil adhering to the wheels or under carriage is removed prior to the vehicle leaving the Site. Any situations involving material spilled in transit or mud and dust tracked off-site will be remedied. The truck access routes will be evaluated for road conditions, overhead clearance, and weight restrictions. Outbound truck transport routes will take in account the following factors: (a) limiting transport through residential areas and past sensitive sites; (b) use of mapped truck routes; (c) minimizing off-Site queuing of trucks entering the facility; (d) limiting total distance to major highways; (e) promoting safety in access to highways; and (f) overall safety in transport. Trucks will not stop or idle in the neighborhood after leaving the project Site.

Hazardous materials, including any ACM, LBP, and PCBs will be handled, transported and disposed in accordance with applicable city, state and Federal regulations.

3.3 Materials Disposal Off-Site

All impacted soil/fill or other waste excavated and removed from the Site will be managed as regulated material and will be disposed in accordance with applicable laws and regulations. Historic fill and contaminated soils taken off-Site will be handled as solid waste and will not be disposed at a Part 360-16 Registration Facility (also known as a Soil Recycling Facility).

Waste characterization will be performed for off-Site disposal in a manner required by the receiving facility and in conformance with its applicable permits. A manifest system for off-Site transportation of exported materials will be employed. Hazardous wastes derived from on-Site will be stored, transported, and disposed of in compliance with applicable laws and regulations

Disposal of soil/fill from this Site may qualify for unregulated disposal (e.g., rock or native soil removed for development purposes), including transport to a Part 360-16 Registration Facility. If so, a formal request will be made for approval by New York City Department of Environmental Protection (NYCDEP) with an associated plan compliant with 6NYCRR Part 360-16. This request and plan will include the location, volume and a description of the material to be recycled, including verification that the material is not impacted by site uses and that the material complies with receipt requirements for recycling under 6NYCRR Part 360. This material will be appropriately handled on-Site to prevent mixing with impacted material.

3.4 Materials Reuse On-Site

Soil and fill that is derived from the property that meets the soil cleanup objectives established in this plan may be reused on-Site. "Reuse On-Site" means material that is excavated during the remedy or development, does not leave the property, and is relocated within the same property and on comparable soil/fill material, and addressed pursuant to Engineering Controls. The PE/QEP will ensure that reused materials are segregated from other materials to be exported from the Site and that procedures defined for material reuse in this RAP are followed. The expected location for placement of reused material will be shown in the final RAP.

Additional details on the methods to be followed for materials reuse on-Site, such as stockpile segregation plan for on-Site reuse, including the maximum size of stockpiles and proposed location(s) shown on a map will be provided in the final RAP.

Organic matter (wood, roots, stumps, etc.) or other waste derived from clearing and grubbing of the Site will not be buried on-Site. Soil or fill excavated from the site for grading or other purposes will not be reused within a cover soil layer or within landscaping berms.

3.5 Import of Backfill Soil from Off-Site Sources

All imported soil will be uncontaminated, clean soil that meets the lesser of the appropriate NYSDEC 6 NYCRR Part 375-6.8(a) RRSCOs. A process will be established to evaluate sources of backfill and cover soil to be imported to the Site, and will include an examination of source location, current and historical use(s), and any applicable documentation. Material from industrial sites, spill sites, environmental remediation sites or other potentially contaminated sites will not be imported to the Site.

3.6 Source Screening and Testing

Inspection of imported fill material will include visual, olfactory and photoionization detector (PID) screening for evidence of contamination. Composite samples of imported material will be taken at a minimum frequency of one sample for every 500 cubic yards of material. Once it is determined that the fill material meets imported backfill or cover soil chemical requirements and is non-hazardous, and lacks petroleum contamination, the material will be loaded onto trucks for delivery to the Site.

Recycled concrete aggregate (RCA) will be imported only from facilities permitted or registered by NYSDEC. The design engineer is responsible to ensure that the facility is compliant with 6NYCRR Part 360 registration and permitting requirements for the period of acquisition of RCA. RCA imported from compliant facilities will not require additional testing, unless required by NYSDEC under its terms for operation of the facility. RCA imported to the Site must be derived from recognizable and uncontaminated concrete. RCA material is not acceptable for and will not be used as cover material.

3.7 Fluids Management

All liquids to be removed from the Site, including dewatering fluids, will be handled, transported and disposed in accordance with applicable laws and regulations. Liquids discharged into the New York City sewer system will receive prior approval by NYCDEP. The NYCDEP regulates discharges to the New York City sewers under Title 15, Rules of the City of New York Chapter 19. Discharge to the New York City sewer system will require an authorization and sampling data demonstrating that the groundwater meets the City's discharge criteria. The dewatering fluid will be pretreated as necessary to meet the NYCDEP discharge criteria. If discharge to the City sewer system is not appropriate, the dewatering fluids will be managed by transportation and disposal at an off-Site treatment facility.

Discharge of water generated during remedial construction to surface waters (i.e. a stream or river) or to a storm sewer that does not connect to a NYCDEP waste water treatment plant is prohibited without a SPDES permit issued by NYSDEC.

3.8 Stormwater Pollution Prevention

Applicable laws and regulations pertaining to stormwater pollution prevention will be addressed during the remedial program. Erosion and sediment control measures identified in this RAP (silt fences and barriers, and hay bale checks) will be installed around the entire perimeter of the remedial construction area and inspected once a week and after every storm event to ensure that they are operating appropriately. Discharge locations will be inspected to determine whether erosion control measures are effective in preventing significant impacts to receptors. Results of inspections will be recorded in a logbook and maintained at the Site and available for inspection by NYCDEP. All necessary repairs shall be made immediately. Accumulated sediments will be removed as required to keep the barrier and hay bale check functional. Undercutting or erosion of the silt fence anchor will be repaired immediately with appropriate backfill materials. Manufacturer's recommendations will be followed for replacing silt fencing damaged due to weathering.

3.9 Odor Control

All necessary means will be employed to prevent on- and off-Site odor nuisances. At a minimum, procedures will include: (a) limiting the area of open excavations; (b) shrouding open excavations with tarps and other covers; and (c) use of foams to cover exposed odorous soils. If odors develop and cannot otherwise be controlled, additional means to eliminate odor nuisances will include: (d) direct load-out of soils to trucks for off-Site disposal; and (e) use of chemical odorants in spray or misting systems.

This odor control plan is capable of controlling emissions of nuisance odors. If nuisance odors are identified, work will be halted, and the source of odors will be identified and corrected. Work will not resume until all nuisance odors have been abated. NYCDEP will be notified of all odor complaint events.

3.10 Dust Control

- In order to prevent the potential migration of dust that may contain above-background levels of contaminants, the following measures will be implemented during all soil disturbance activities:
- Use of a dedicated water spray methodology for roads, excavation areas and stockpiles.
- Use of properly anchored tarps to cover stockpiles.
- Exercise extra care during dry and high-wind periods.
- Equipment and materials will be stored and staged in a manner that complies with applicable laws and regulations.
- Construction entrances will be stabilized to ensure that trucks departing the site will not track soil, fill or debris off-Site. Such actions may include use of cleaned asphalt or concrete roads or use of stone or other aggregate-based egress paths between the truck inspection station and the property exit. Measures will be taken to ensure that adjacent roadways will be kept clean of project related soils, fill and debris.
- An outbound-truck inspection station will be set up close to the Site exit. Before exiting the Site, trucks will be required to stop at the truck inspection station and will be examined for evidence of contaminated soil on the undercarriage, body, and wheels. Soil and debris will be removed. Brooms, shovels and potable water will be utilized for the removal of soil from vehicles and equipment, as necessary.

This dust control plan is capable of controlling emissions of dust. If nuisance dust emissions are identified, work will be halted, and the source of dusts will be identified and corrected. Work will not resume until all nuisance dust emissions have been abated. NYCDEP will be notified of all dust complaint events.

3.11 Community Air Monitoring Plan (CAMP)

Real-time air monitoring for VOCs and particulate levels at the perimeter of the exclusion zone or work area will be performed. Continuous monitoring will be performed for all ground intrusive activities and during the handling of contaminated or potentially contaminated media. Ground intrusive activities include, but are not limited to, soil/waste excavation and handling, test pit excavation or trenching, and the installation of soil borings or monitoring wells. Exceedances of action levels observed during performance of the Community Air Monitoring Plan (CAMP) will be reported to the DEP Project Manager and included in the Daily Report.

3.11.1 VOC Monitoring, Response Levels, and Actions

VOCs will be monitored at the downwind perimeter of the immediate work area (i.e., the exclusion zone) during invasive work. Upwind concentrations will be measured at the start of each workday and periodically thereafter to establish background conditions. The monitoring work will be performed using equipment appropriate to measure the types of contaminants known or suspected to be present. The equipment will be calibrated at least daily for the contaminant(s) of concern or for an appropriate surrogate. The equipment will be capable of calculating 15-minute running average concentrations, which will be compared to the levels specified below.

Instrument	Action Level[1]	Response Action
Volatile Organic Compound Monitoring	Exceeds 5 ppm	**Work activities temporarily halted.** Monitoring continued until the total organic vapor level readily decreases below 5 ppm over background, in which work activities may resume.
	Exceeds 5 ppm over background but less than 25 ppm	**Work activities will be halted**, the source of the vapors identified, corrective actions to abate emissions, and monitoring continued. Resume work provided that the total organic vapor level 200 feet downwind of the exclusion zone or half the distance to the nearest potential receptor or residential/commercial structure, whichever is less - but in no case less than 20 feet, is below 5 ppm over background for the 15-minute average.
	Exceeds 25 ppm	**Work activities will be shut down.** Work will not resume until the source of vapors is abated and readings are less than 25 ppm above background.
Note[1]: The ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone for the 15-minute average, in parts per million (ppm).		

All 15-minute readings must be recorded and be available for NYCDEP personnel to review. Instantaneous readings, if any, used for decision purposes will also be recorded.

3.11.2 Particulate Monitoring, Response Levels, and Actions

Particulate concentrations will be monitored at the upwind and downwind perimeters of the exclusion zone at temporary particulate monitoring stations. The particulate monitoring will be performed using real-time monitoring equipment capable of measuring particulate matter less than 10 micrometers in size (PM-10) and capable of integrating over a period of 15 minutes (or less) for comparison to the airborne particulate action level. The equipment will be equipped with an audible alarm to indicate exceedance of the action level. In addition, fugitive dust migration should be visually assessed during all work activities.

Instrument	Action Level[1]	Response Action
Particulate Monitoring	Between 100 mcg/m^3 and 150 mcg/m^3	**Dust suppression techniques employed.** Work will continue provided that downwind PM-10 particulate levels do not exceed 150 mcg/m^3 above the upwind level and provided that no visible dust is migrating from the work area
	Exceeds 150 mcg/m^3	**Work activities will be halted,** and activities re-evaluated. Work will resume provided that dust suppression measures and other controls are successful in reducing the downwind PM-10 particulate concentration to within 150 mcg/m^3 of the upwind level and in preventing visible dust migration
Note [1] : The ambient air concentration of total organic vapors at the downwind perimeter of the work area or exclusion zone for the 15-minute average, milligrams per cubic meter (mg/m^3).		

All readings will be recorded and be available for NYCDEP personnel to review.

3.12 Petroleum Storage Tank Closure

Any tanks (and piping or other associated equipment) will be cleaned, removed and disposed of in accordance with accepted industry standards and applicable federal, state, and local regulatory agency requirements. Tank decommissioning and removal, and soil sampling and removal from the vicinity of any discovered USTs, will be conducted in accordance with the NYSDEC Division of Environmental Remediation (DER) Commissioner Policy (CP) 51, "Soil Cleanup Guidance," dated October 21, 2012 and NYSDEC, Division of Spills and Responses Memorandum regarding Permanent Closure of Petroleum Storage Tanks (January 20, 1987 and last modified December 3, 2003).

According to 6 NYCRR Part 612.2, the existing State Petroleum Bulk Storage listing for the Site must be updated to reflect the discovery and subsequent removal of any known or previously undocumented tanks from the Site. Tank removal activities and any associated petroleum-contaminated soil removal must be documented in a Spill Closure Report, which will be submitted to NYSDEC. In addition, the removal of any gasoline USTs must be reported to the New York City Fire Department.

Typical UST removal procedures are summarized below:

1. Open fill cap or vent pipe and measure for product. Collect a sample of the product. Tank contents will be sampled in accordance with applicable federal, state and local requirements and tested in accordance with the requirements of the receiving facility. Proper disposal of tank contents at an approved facility will be dictated by sample results.
2. Excavate to expose the tank. Vacuum liquid tank contents and pumpable tank bottom residue.
3. Excavate around the tank with care to avoid release of tank and piping contents. Hand excavation around the tank may be necessary. The sides of all excavated areas will be properly stabilized in accordance with OSHA regulations. Continuously monitor the excavated areas in the worker breathing zone for the presence of flammable, toxic or oxygen deficient atmosphere with a PID, a combustible gas indicator (CGI), and an oxygen meter.
4. Inert the tank of flammable vapors using dry ice and verify using an oxygen meter (less than 7 percent). An access hole will be cut in the tank and the tank will be thoroughly cleaned of residual liquids and sludges.
5. Entry of the tank, if necessary, will be conducted in conformance with OSHA confined space requirements.
6. Remaining fuels, loose slurry, sludge materials and wastewater will be collected in DOT approved drums, sampled and analyzed for disposal characterization. After disposal characterization, waste material will be removed and disposed of in accordance with applicable regulations.
7. Remove the tank and all associated piping from the ground and clean the outside of the tank. The tank and piping will be rendered "not reusable," removed from the Site and disposed of according to applicable regulations with proper documentation. Remove and dispose of all concrete tank support structures or vaults as encountered.
8. Spill reporting to the NYSDEC Spill Hotline (800-457-7362) will be conducted, as necessary.
9. After tank removal, examine for evidence of petroleum releases in accordance with NYSDEC CP 51, “Soil Cleanup Guidance,” dated October 21, 2012.
10. Suspect materials will be field-screened with a PID. If soil contamination is present, excavate and remove contaminated soil from the tank areas in accordance with the stockpiling and/or direct-loading

procedures presented in Sections 3.1.1, 3.1.2., 3.1.3. Material will be excavated until field screening with a PID yields concentrations of less than 20 ppm and until there are no remaining visible signs of contamination or odors. After contaminated soil removal, collect endpoint samples at each sidewall and at the bottom of the excavation for analytical testing as specified in the NYSDEC CP 51, "Soil Cleanup Guidance," dated October 21, 2012.

11. Photo-document all procedures and record all procedures in a bound field notebook.
12. Copies of all testing results, correspondence with disposal facilities concerning classification of materials, and permits/approvals will be maintained by the project manager and will be submitted to the NYSDEC in a Tank Closure Report.
13. A signed affidavit will be prepared by the licensed tank installation (removal) contractor and submitted to the New York City Fire Department certifying proper removal of the tank(s).
    Update the PBS listing to reflect UST closure.

3.13 Hazardous Materials Mitigation Air Monitoring

ACM was not identified on-Site and therefore related air monitoring is not required. The following monitoring requirements are provided in case of previously unidentified ACM. Compliance air monitoring for ACM and particulate levels within the regulated abatement work area and restricted areas (as applicable) will be performed by a NYSDOL Licensed Contractor and certified Project Monitors. Work area monitoring will be in accordance with 12 NYCRR Part 56 as well as specific instances of identified disturbances to LBP or other hazardous materials.

4.0 REMEDIAL MEASURES

4.1 Engineering Controls

Engineering Controls will be employed in the remedial action to address residual contamination remaining at the site. The Site's Engineering Control (EC) Systems include:

- Site Cap: Composite cover system consisting of a combination asphalt covered parking areas, concrete covered sidewalks, concrete building slabs, and landscaped areas (the exact types will be provided in the revised RAP);
    a. Any landscaped areas will have a "soil cap" consisting of two feet of imported clean soil, (tested at the source facility for the full Target Compound List [TCL] and Target Analyte List [TAL], initially at a frequency of one composite sample per 250 cubic yards, but with lower frequency for certain sources if approved by NYCDEP). Imported soils will meet NYSDEC RRSCOs. The clean soil layer will be underlain by a demarcation layer such as orange snow fence to indicate the top of the original soil/fill.
    b. Upon completion of the clean fill/top soil investigation activities, a detailed clean soil report will be submitted to the NYCDEP for review and approval prior to importation and placement on-site. The report should include, at a minimum, an executive summary, narrative of the field activities, laboratory data, and comparison of soil analytical results (i.e., NYSDEC 6 NYCRR Part 375 Environmental Remediation Programs). These results will be provided to NYCDEP for approval and summarized in the RCR.
    c. Once approved by NYCDEP, the clean fill/topsoil may be imported to the Site.
- Vapor Barrier: The installation of a vapor barrier system beneath the building slab and along foundation sidewalls to reduce the potential for vapor intrusion. The vapor barrier will be a minimum 20-mil reinforced membrane (Preprufe® 300R or NYCDEP-approved equivalent)) applied outside of exterior below-grade foundation walls and beneath the building slab. Any penetrations will be sealed in accordance with the manufacturer's specifications.
- Sub-Slab Depressurization System (SSDS): In the event that development plans change and not all soils above the water table will be excavated and removed, or the foundation is not situated below the groundwater table, provisions for a passive SSDS (with the capability of being converted to an active SSDS if warranted based on future conditions) would be incorporated into the building design. The SSDS design would be submitted to NYCDEP for approval.

These systems are permanent engineering controls for the Site.

4.2 Contingency Plan

This contingency plan is developed for the remedial construction to address the discovery of unknown structures or contaminated media during excavation. Identification of unknown contamination source areas during invasive Site work will be promptly communicated to NYCDEP's Project Manager. Petroleum spills will be reported to the NYS DEC Spill Hotline. These findings will be included in the daily report. If previously unidentified contaminant sources are found during on-Site remedial excavation or development-related excavation, sampling will be performed on contaminated source material and surrounding soils and reported to NYCDEP. Chemical analytical testing will be performed for the full TCL/TAL, as appropriate.

4.3 Deviations from the Remedial Action Plan

All changes to the RAP will be reported to the NYCDEP in the RCR, including the following information:

- Reasons for deviating from the approved RAP;
- Effect of the deviations on overall remedy; and
- Determination that the remedial action with the deviation(s) is protective of public health and the environment.

5.0 REMEDIAL CLOSURE REPORT

A PE-Certified RCR will be submitted to NYCDEP following implementation of the remedial action defined in this RAP. The RCR will document that the remedial work required under this RAP has been completed and has been performed in compliance with this plan. The RCR will include:

- As-built drawings for all constructed remedial elements, required certifications, manifests and other written and photographic documentation of remedial work performed under this remedy;
- Description of any changes in the remedial action from the elements provided in this RAP and associated design documents;
- Regulatory correspondence, including from NYCDEP or NYSDEC;
- Tabular summary of any end-point sampling results and all material characterization results, including comparison of analytical results to NYSDEC 6NYCRR Part 375 Soil Cleanup Objectives, QA/QC results for end-point sampling, and other sampling and chemical analysis performed as part of the remedial action;
- Account of the disposal destination of all contaminated material removed from the Site. Documentation associated with disposal of all material will include quantities, transportation and disposal records, and letters approving receipt of the material.
- Account of the origin, quantity, and required chemical quality testing for material imported onto the Site.

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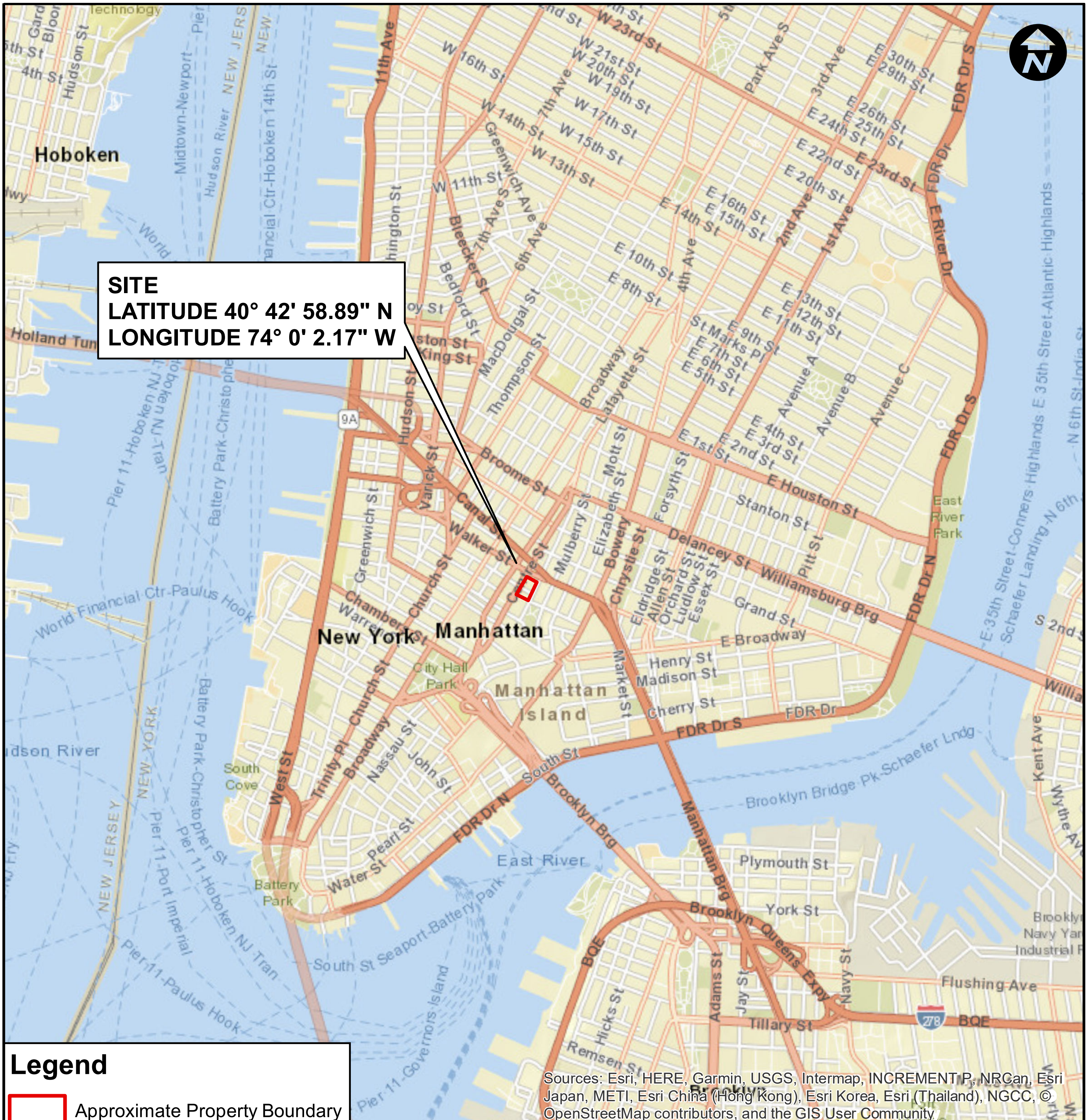
FIGURES



REGIONAL LOCATION MAP

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STATE OF NEW YORK CERTIFICATE OF AUTHORIZATION No. 17-082661

MANHATTAN HOUSE OF DETENTION
124-125 WHITE STREET
BLOCK 198, LOT 1 and BLOCK 167, LOT 1
MANHATTAN, NEW YORK COUNTY, NEW YORK

SCALE:	DATE:	JOB NO.:	FILENAME:	FIGURE NO.:
1:25,000	JUNE 2019	17-901	regional.mxd	1

RECOGNIZED ENVIRONMENTAL CONDITIONS

REC-1: Floor Drains in MDC-S Basement Mechanical Room
REC-2: MDC-N UST
REC-3: MDC-S AST
REC-4: Inaccessible Areas (Not Shown)
REC-5: Former Filling Station
REC-6: VEC (Not Shown)

Notes:

1. A soil sample was not collected at SB-01 (2018) due to a gravel layer at least 3 ft thick. A soil vapor sample was collected at this location (SV-01).
2. A soil sample was not collected at SB-02 (2018) due to the concrete slab being greater than 14 in. thick, however, a soil sample was collected from the French drain inside the AST room.
3. A soil sample was not collected at SB-02 (2019) due to a gravel layer 0.5 ft thick followed by a secondary layer of concrete.
4. A soil sample was not collected at SB-04A (2019) due to the concrete slab being greater than 2 ft thick.
5. A deep soil sample was not collected at SB-03 (2019) due to a possible rail tie past 2 ft-bgs.

Legend

Soil Boring Location
Soil Gas Sample Location
Wellpoint Location
Approximate Property Boundary

0 15 30 60 90 120 Feet

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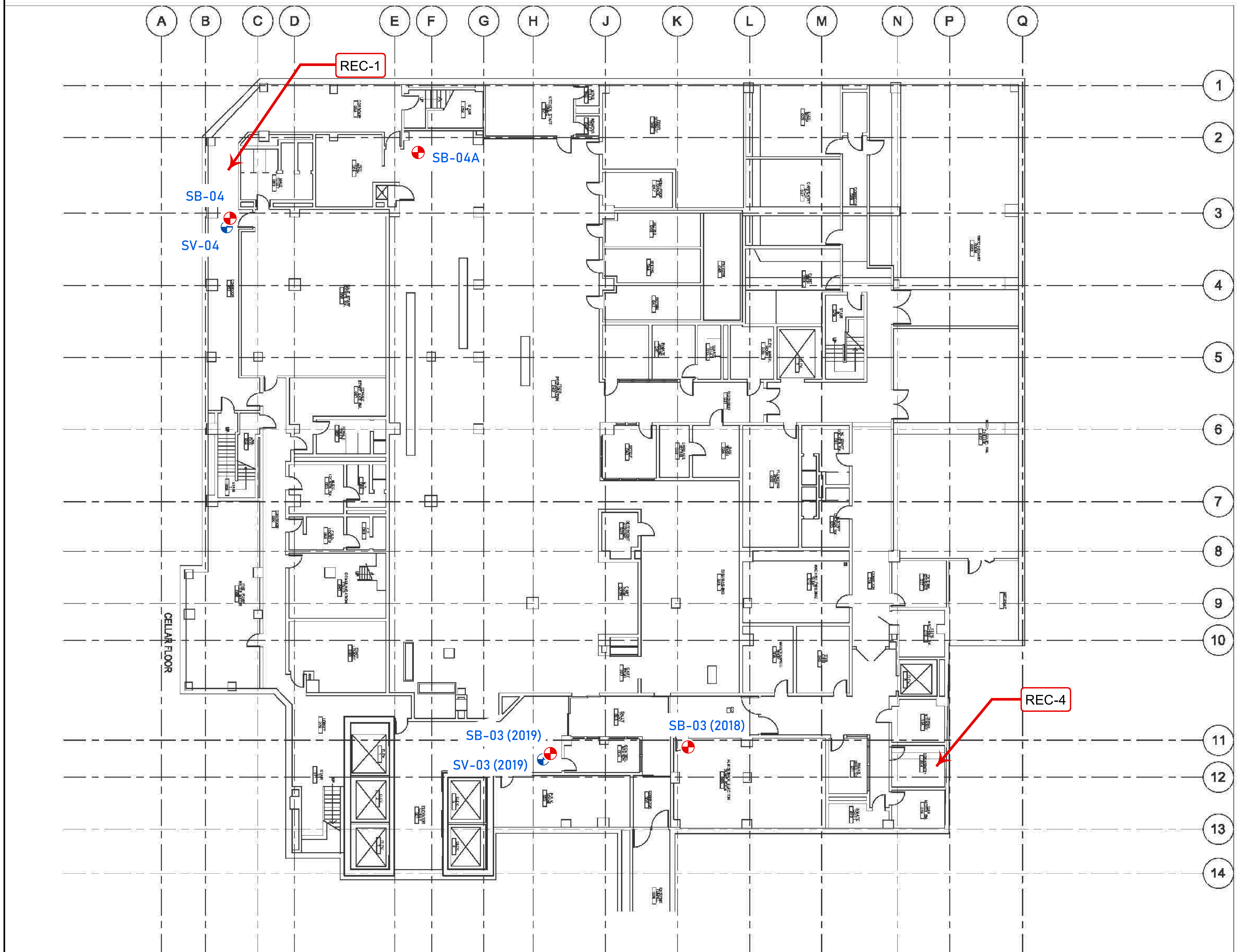
SOIL BORING LOCATION MAP

MANHATTAN HOUSE OF DETENTION
124-125 WHITE STREET
BLOCK 198, LOT 1 and BLOCK 167, LOT 1
MANHATTAN, NEW YORK COUNTY, NEW YORK

JUNE 2019 | **FIGURE 2**



RECOGNIZED ENVIRONMENTAL CONDITIONS

REC-4: Inaccessible Areas (Not Shown)

REC-5: Former Filling Station

Note:

1. A soil sample was not collected at SB-04A due to the concrete slab being greater than 2 feet.
2. Only one soil sample was collected at SB-03 (2018) due to a secondary layer of concrete.
3. Only one soil sample was collected at SB-03 (2019) due to a possible rail tie/secondary layer of concrete. A soil vapor sample was collected at this location SV-03 (2019).

Legend

- Soil Boring Location
- Soil Gas Sample Location

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CELLAR FLOOR PLAN

MANHATTAN HOUSE OF DETENTION
124-125 WHITE STREET
BLOCK 198, LOT 1 and BLOCK 167, LOT 1
MANHATTAN, NEW YORK COUNTY, NEW YORK

JUNE 2019 **FIGURE 3a**

N

RECOGNIZED ENVIRONMENTAL CONDITIONS

REC-1: Floor Drains in MDC-S Basement Mechanical Room
REC-3: MDC-S AST
REC-4: Inaccessible Areas (Not Shown)

Notes

1. A soil sample was not collected at SB-01 (2018) due to a gravel layer at least 3 ft thick. A soil vapor sample was collected at this location (SV-01).
2. A soil sample was not collected at SB-02 (2018) due to the concrete slab being greater than 14 in. thick, however, a soil sample was collected from the French drain inside the AST room.
3. A soil sample was not collected at SB-02 (2019) due to the a layer of pea gravel followed by a secondary layer of concrete.

Legend

- Soil Gas Sample Location
- Soil Boring Location

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CELLAR FLOOR PLAN

MANHATTAN HOUSE OF DETENTION
124-125 WHITE STREET
BLOCK 198, LOT 1 and BLOCK 167, LOT 1
MANHATTAN, NEW YORK COUNTY, NEW YORK

JUNE 2019 | **FIGURE 3b**

TABLES

Table 1A
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results October 2018

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Engineering Progress

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	AST ROOM	SB-03 (0-2') (2018)	SB-04 (0-2') (2018)	SB-04 (3-5') (2018)
Lab Sample ID:			AD06887-001	AD06887-004	AD06913-002	AD06913-003
Date Sampled:			10/2/2018	10/2/2018	10/3/2018	10/3/2018
Sample Depth:			0-0.5 ft-bbg	0-2 ft-bbg	0-2 ft-bbg	3-5 ft-bbg
VOCs						
:TotalVolatileTic	NA	NA	0.12J	0.0046J	0.067J	0.28J
1,1,1-Trichloroethane	100	0.68	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NA	NA	ND	ND	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NA	NA	ND	ND	ND	ND
1,1,2-Trichloroethane	NA	NA	ND	ND	ND	ND
1,1-Dichloroethane	26	0.27	ND	ND	ND	ND
1,1-Dichloroethene	100	0.33	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NA	NA	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NA	NA	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	NA	NA	ND	ND	ND	ND
1,2-Dibromoethane	NA	NA	ND	ND	ND	ND
1,2-Dichlorobenzene	100	1.1	ND	ND	ND	ND
1,2-Dichloroethane	3.1	0.02	ND	ND	ND	ND
1,2-Dichloropropane	NA	NA	ND	ND	ND	ND
1,3-Dichlorobenzene	49	2.4	ND	ND	ND	ND
1,4-Dichlorobenzene	13	1.8	ND	ND	ND	ND
1,4-Dioxane	13	0.1	ND	ND	ND	ND
2-Butanone	100	0.12	ND	0.023	0.015	0.016
2-Hexanone	NA	NA	ND	ND	ND	ND
4-Methyl-2-pentanone	NA	NA	ND	ND	ND	ND
Acetone	100	0.05	ND	***0.22***	***0.068***	***0.070***
Benzene	4.8	0.06	ND	ND	ND	ND
Bromochloromethane	NA	NA	ND	ND	ND	ND
Bromodichloromethane	NA	NA	ND	ND	ND	ND
Bromoform	NA	NA	ND	ND	ND	ND
Bromomethane	NA	NA	ND	ND	ND	ND
Carbon disulfide	NA	NA	ND	0.0056	ND	0.0041
Carbon tetrachloride	2.4	0.76	ND	ND	ND	ND
Chlorobenzene	100	1.1	ND	ND	ND	ND
Chloroethane	NA	NA	ND	ND	ND	ND
Chloroform	49	0.37	ND	ND	ND	ND
Chloromethane	NA	NA	ND	ND	ND	ND
cis-1,2-Dichloroethene	100	0.25	ND	ND	ND	ND
cis-1,3-Dichloropropene	NA	NA	ND	ND	ND	ND
Cyclohexane	NA	NA	ND	ND	ND	ND
Dibromochloromethane	NA	NA	ND	ND	ND	ND
Dichlorodifluoromethane	NA	NA	ND	ND	ND	ND
Ethylbenzene	41	1	ND	ND	ND	ND
Isopropylbenzene	NA	2.3	ND	ND	ND	ND
m&p-Xylenes	100	0.26	ND	ND	ND	ND
Methyl Acetate	NA	NA	ND	ND	ND	0.018
Methylcyclohexane	NA	NA	ND	ND	ND	ND
Methylene chloride	100	0.05	0.0090	ND	ND	ND
Methyl-t-butyl ether	100	0.93	ND	ND	ND	ND
o-Xylene	100	0.26	ND	ND	ND	ND
Styrene	NA	NA	ND	ND	ND	ND
Tetrachloroethene	19	1.3	ND	ND	ND	ND
Toluene	100	0.7	ND	ND	ND	ND
trans-1,2-Dichloroethene	100	0.19	ND	ND	ND	ND
trans-1,3-Dichloropropene	NA	NA	ND	ND	ND	ND
Trichloroethene	21	0.47	ND	ND	ND	ND
Trichlorofluoromethane	NA	NA	ND	ND	ND	ND
Vinyl chloride	0.9	0.02	ND	ND	ND	ND
Xylenes (Total)	100	0.26	ND	ND	ND	ND

Notes:

ft-bgs = feet below ground surface
PCBs = Polychlorinated Biphenyls
ft-bbg = feet below basement grade
All sample depths presented in ft-bbg
VOCs = Volatile Organic Compounds
TICs = Tentatively Identified Compounds
SVOCs = Semi-Volatile Organic Compounds
J = Estimated concentration below laboratory reporting limit
All analytical results for soil in milligrams per kilogram (mg/kg)
NC = No Criteria
UUSCO = NYSDEC's December 2006 Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)
RRSCO = NYSDEC's December 2006 Residential Restricted Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

Bold and italic	Exceeds the UUSCO
Bold	Exceeds the RRSCO asnd UUSCO

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Engineering Progress

Table 1A
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results October 2018

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	AST ROOM	SB-03 (0-2') (2018)	SB-04 (0-2') (2018)	SB-04 (3-5') (2018)
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Date Sampled:			10/2/2018	10/2/2018	10/3/2018	10/3/2018
Sample Depth:			0-0.5 ft-bbg	0-2 ft-bbg	0-2 ft-bbg	3-5 ft-bbg
SVOCs						
:TotalSemiVolatileTic	NA	NA	1500J	25J	70J	32J
1,1'-Biphenyl	NA	NA	ND	ND	ND	ND
1,2,4,5-Tetrachlorobenzene	NA	NA	ND	ND	ND	ND
2,3,4,6-Tetrachlorophenol	NA	NA	ND	ND	ND	ND
2,4,5-Trichlorophenol	NA	NA	ND	ND	ND	ND
2,4,6-Trichlorophenol	NA	NA	ND	ND	ND	ND
2,4-Dichlorophenol	NA	NA	ND	ND	ND	ND
2,4-Dimethylphenol	NA	NA	ND	ND	0.12	ND
2,4-Dinitrophenol	NA	NA	ND	ND	ND	ND
2,4-Dinitrotoluene	NA	NA	ND	ND	ND	ND
2,6-Dinitrotoluene	NA	NA	ND	ND	ND	ND
2-Chloronaphthalene	NA	NA	ND	ND	ND	ND
2-Chlorophenol	NA	NA	ND	ND	ND	ND
2-Methylnaphthalene	NA	NA	69	ND	1.2	ND
2-Methylphenol	100	0.33	ND	ND	ND	ND
2-Nitroaniline	NA	NA	ND	ND	ND	ND
2-Nitrophenol	NA	NA	ND	ND	ND	ND
3&4-Methylphenol	100	0.33	ND	ND	0.14	ND
3,3'-Dichlorobenzidine	NA	NA	ND	ND	ND	ND
3-Nitroaniline	NA	NA	ND	ND	ND	ND
4,6-Dinitro-2-methylphenol	NA	NA	ND	ND	ND	ND
4-Bromophenyl-phenylether	NA	NA	ND	ND	ND	ND
4-Chloro-3-methylphenol	NA	NA	ND	ND	ND	ND
4-Chloroaniline	NA	NA	ND	ND	ND	ND
4-Chlorophenyl-phenylether	NA	NA	ND	ND	ND	ND
4-Nitroaniline	NA	NA	ND	ND	ND	ND
4-Nitrophenol	NA	NA	ND	ND	ND	ND
Acenaphthene	100	20	**150**	0.16	3.1	0.65
Acenaphthylene	100	100	ND	ND	ND	ND
Acetophenone	NA	NA	ND	ND	ND	ND
Anthracene	100	100	**340**	0.29	3.1	0.27
Atrazine	NA	NA	ND	ND	ND	ND
Benzaldehyde	NA	NA	ND	ND	ND	ND
Benzo[a]anthracene	1	1	**510**	0.68	**11**	0.52
Benzo[a]pyrene	1	1	**370**	0.67	**11**	0.47
Benzo[b]fluoranthene	1	1	**490**	0.77	**13**	0.61
Benzo[g,h,i]perylene	100	100	**200**	0.45	6.3	0.28
Benzo[k]fluoranthene	3.9	0.8	**170**	0.25	**4.4**	0.20
bis(2-Chloroethoxy)methane	NA	NA	ND	ND	ND	ND
bis(2-Chloroethyl)ether	NA	NA	ND	ND	ND	ND
bis(2-Chloroisopropyl)ether	NA	NA	ND	ND	ND	ND
bis(2-Ethylhexyl)phthalate	NA	NA	ND	0.16	ND	ND
Butylbenzylphthalate	NA	NA	ND	ND	ND	ND
Caprolactam	NA	NA	ND	ND	ND	ND
Carbazole	NA	NA	170	0.10	1.4	ND
Chrysene	3.9	1	**430**	0.65	**10**	0.52
Dibenzo[a,h]anthracene	0.33	0.33	**56**	0.087	**1.6**	0.072
Dibenzofuran	59	7	**140**	0.067	2.1	0.048
Diethylphthalate	NA	NA	ND	ND	ND	ND
Dimethylphthalate	NA	NA	ND	ND	ND	ND
Di-n-butylphthalate	NA	NA	ND	0.013B	ND	0.012
Di-n-octylphthalate	NA	NA	ND	ND	ND	ND
Fluoranthene	100	100	**1200**	1.6	24	1.3
Fluorene	100	30	**200**	0.12	2.3	0.31
Hexachlorobenzene	1.2	0.33	ND	ND	ND	ND
Hexachlorobutadiene	NA	NA	ND	ND	ND	ND
Hexachlorocyclopentadiene	NA	NA	ND	ND	ND	ND
Hexachloroethane	NA	NA	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	0.5	0.5	**190**	0.36	**5.6**	0.25
Isophorone	NA	NA	ND	ND	ND	ND
Naphthalene	100	12	**260**	0.028	4.1	0.020
Nitrobenzene	15	NA	ND	ND	ND	ND
N-Nitroso-di-n-propylamine	NA	NA	ND	ND	ND	ND
N-Nitrosodiphenylamine	NA	NA	ND	ND	ND	ND
Pentachlorophenol	6.7	0.8	ND	ND	ND	ND
Phenanthrene	100	100	**1300**	1.4	20	0.86
Phenol	100	0.33	ND	ND	ND	ND
Pyrene	100	100	**960**	1.7	23	1.2

Notes:

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Bold	Exceeds the RRSCO asnd UUSCO

Table 1A
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results October 2018

MATRIXNEWORLD
Engineering Progress

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	AST ROOM	SB-03 (0-2') (2018)	SB-04 (0-2') (2018)	SB-04 (3-5') (2018)
Lab Sample ID:			AD06887-001	AD06887-004	AD06913-002	AD06913-003
Date Sampled:			10/2/2018	10/2/2018	10/3/2018	10/3/2018
Sample Depth:			0-0.5 ft-bbg	0-2 ft-bbg	0-2 ft-bbg	3-5 ft-bbg
Metals						
Aluminum	NA	NA	15000	27000	11000	8900
Antimony	NA	NA	ND	ND	ND	ND
Arsenic	16	13	6.4	6.0	2.6	2.7
Beryllium	72	7.2	0.31	0.42	0.33	0.39
Barium	400	350	**2200**	230	300	81
Cadmium	4.3	2.5	**6.4**	0.82	0.55	ND
Calcium	NA	NA	220000	110000	18000	10000
Chromium	110	1	**380**	***93***	***29***	***30***
Cobalt	NA	NA	29	37	38	8.9
Copper	270	50	**4500**	***99***	***56***	28
Cyanide	27	27	ND	0.55	ND	ND
Iron	NA	NA	300000	59000	21000	16000
Lead	400	63	***230***	***230***	**490**	***68***
Magnesium	NA	NA	23000	11000	5800	4200
Manganese	2,000	1,600	**3100**	1200	400	370
Mercury	0.81	0.18	**1.0**	***0.66***	***0.66***	***0.34***
Nickel	310	30	**710**	***93***	***42***	***39***
Potassium	NA	NA	5900	4500	2500	1400
Selenium	180	3.9	ND	ND	ND	ND
Silver	180	2	1.6	0.37	0.38	ND
Sodium	NA	NA	10000	880	380	ND
Thallium	NA	NA	ND	ND	ND	ND
Vanadium	NA	NA	ND	80	28	24
Zinc	10,000	109	***4100***	***2200***	***260***	66
PCBs						
Aroclor (Total)	1	0.1	ND	ND	0.43	0.17
Aroclor-1016	1	0.1	ND	ND	ND	ND
Aroclor-1221	1	0.1	ND	ND	ND	ND
Aroclor-1232	1	0.1	ND	ND	ND	ND
Aroclor-1232	1	0.1	ND	ND	ND	ND
Aroclor-1248	1	0.1	ND	ND	ND	ND
Aroclor-1254	1	0.1	ND	ND	0.43	0.17
Aroclor-1260	1	0.1	ND	ND	ND	ND
Aroclor-1262	1	0.1	ND	ND	ND	ND
Aroclor-1268	1	0.1	ND	ND	ND	ND
Pesticides						
Aldrin	0.097	0.005	ND	ND	ND	ND
Alpha-BHC	0.48	0.02	ND	ND	ND	ND
beta-BHC	0.36	0.036	ND	ND	ND	ND
a-Chlordane	4.2	0.094	ND	ND	ND	ND
Chlordane (Total)	4.2	0.094	ND	ND	ND	ND
delta-BHC	100	0.04	ND	ND	ND	ND
Dieldrin	0.2	0.005	ND	ND	ND	ND
Endosulfan I	24	2.4	ND	ND	ND	ND
Endosulfan II	24	2.4	ND	ND	ND	ND
Endosulfan Sulfate	24	2.4	ND	ND	ND	ND
Endrin	11	0.014	ND	ND	ND	ND
Endrin Aldehyde	NA	NA	ND	ND	ND	ND
Endrin Ketone	NA	NA	ND	ND	ND	ND
gamma-BHC	1.3	0.1	ND	ND	ND	ND
Heptachlor	2.1	0.042	ND	ND	ND	ND
Heptachlor Epoxide	NA	NA	ND	ND	ND	ND
Methoxychlor	NA	NA	ND	ND	ND	ND
p,p'-DDD	13	0.0033	ND	ND	ND	ND
p,p'-DDE	8.9	0.0033	ND	ND	ND	ND
p,p'-DDT	7.9	0.0033	ND	ND	ND	ND
Toxaphene	NA	NA	ND	ND	ND	ND
y-Chlordane	4.2	0.094	ND	ND	ND	ND
Wet Chemistry						
% Solids	NA	NA	93(Percent)	68(Percent)	84(Percent)	80(Percent)

Notes:
ft-bgs = feet below ground surface
PCBs = Polychlorinated Biphenyls
ft-bbg = feet below basement grade
All sample depths presented in ft-bbg
VOCs = Volatile Organic Compounds
TICs = Tentatively Identified Compounds
SVOCs = Semi-Volatile Organic Compounds
J = Estimated concentration below laboratory reporting limit
All analytical results for soil in milligrams per kilogram (mg/kg)
NC = No Criteria
UUSCO = NYSDEC's December 2006 Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)
RRSCO = NYSDEC's December 2006 Residential Restricted Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

Bold and italic	Exceeds the UUSCO
Bold	Exceeds the RRSCO asnd UUSCO

Table 1B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
VOCs														
Total TICs	NC	NC	0.0022J	0.0125 J	0.0114 J	0.0174	0.021	ND	ND	0.00921 J	0.00253 J	0.0343 J	0.00739 J	0.00568 J
1,1,1,2-Tetrachloroethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	100	0.68	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	26	0.27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	100	0.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4,5-Tetramethylbenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	52	3.6	ND	ND	0.00038 J	ND	ND	ND	0.0022 J	ND	0.0009 J	ND	ND	ND
1,2-Dibromo-3-chloropropane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	100	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	3.1	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene, Total	NC	NC	ND	0.0032 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	52	8.4	ND	ND	ND	ND	ND	ND	0.001 J	ND	0.00052 J	ND	0.00028 J (0.00023 R1)	ND
1,3-Dichlorobenzene	49	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene, Total	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	13	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	13	0.1	ND	ND	ND	ND	ND	*ND*	*ND*	ND	ND	ND	ND	*ND*
2,2-Dichloropropane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone	100	0.12	ND	ND	0.004 J	ND	ND	ND	ND	ND	0.0026 J	ND	0.033 (0.022 R1)	ND
2-Hexanone	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	100	0.05	0.037	0.02	0.033	0.013	0.023	***0.063***	0.03	0.034	0.024	0.014	***0.19 (0.11 R1)***	0.019
Acrylonitrile	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Benzene	4.8	0.06	ND	ND	0.00017 J	ND	ND	ND	ND	ND	0.00041 J	ND	ND	ND
Bromobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromoform	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bromomethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	2.4	0.76	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	100	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

Notes:

ft-bgs = feet below ground surface
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All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

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SVOCs = Semi-Volatile Organic Compounds

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R1 = Re-run

All analytical results for soil in milligrams per kilogram (mg/kg)

NC = No Criteria

UUSCO = NYSDEC's December 2006 Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

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Italic	Reporting Limit Exceeds Criteria
Bold and Italic	Exceeds the UUSCO
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Engineering Progress

Table 1B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
VOCs														
Chloroethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	49	0.37	ND	0.00024 J	ND	ND	ND	ND	ND	ND	0.00016 J	ND	ND	ND
Chloromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	100	0.25	ND	0.003	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromochloromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dichlorodifluoromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethyl ether	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	41	1	ND	ND	0.00035 J	ND	ND	0.00064 J	0.0024	ND	0.00028 J	ND	ND	ND
Hexachlorobutadiene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Isopropylbenzene	NC	NC	ND	ND	ND	ND	ND	ND	0.00018 J	ND	ND	ND	ND	ND
Methyl tert butyl ether	100	0.93	ND	ND	0.00022 J	ND	ND	ND	ND	0.00046 J	ND	ND	ND	ND
Methylene chloride	100	0.05	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	100	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	100	3.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	100	12	ND	ND	ND	ND	ND	ND	ND	ND	0.0047	ND	ND	ND
o-Chlorotoluene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
o-Xylene	NC	NC	ND	ND	0.00082 J	ND	ND	ND	0.0072	ND	0.001	ND	ND	ND
p-Chlorotoluene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	NC	NC	ND	ND	0.00062 J	ND	ND	ND	ND	ND	0.00065 J	ND	ND	ND
p-Ethyltoluene	NC	NC	ND	ND	ND	ND	ND	ND	0.00052 J	ND	0.0004 J	ND	ND	ND
p-Isopropyltoluene	NC	NC	ND	ND	0.0002 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
p/m-Xylene	NC	NC	ND	ND	0.0018 J	ND	ND	0.0019 J	0.012	ND	0.0016 J	ND	ND	ND
sec-Butylbenzene	100	11	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Styrene	NC	NC	ND	ND	0.00049 J	ND	ND	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	100	5.9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	19	1.3	ND	0.0017	ND	ND	ND	ND	ND	0.00018 J	ND	ND	ND	ND
Toluene	100	0.7	ND	ND	0.0013	ND	ND	ND	ND	0.00063 J	0.00092	ND	ND	ND
trans-1,2-Dichloroethene	100	0.19	ND	0.00015 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-1,4-Dichloro-2-butene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	21	0.47	ND	0.0035	ND	ND	ND	ND	0.00018 J	0.00047	0.00018 J	ND	ND	ND
Trichlorofluoromethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	0.9	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	100	0.26	ND	ND	0.0026 J	ND	ND	0.0019 J	0.019	ND	0.0026 J	ND	ND	ND
Total VOCs	NC	NC	0.037	0.03179	0.04335	0.013	0.023	0.06554	0.05568	0.03574	0.03832	0.014	0.22328	0.019

Notes:

ft-bgs = feet below ground surface

ft-bbg = feet below basement grade

All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

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J = Estimated concentration below laboratory reporting limit

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UUSCO = NYSDEC's December 2006 Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

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Bold and Italic	Exceeds the UUSCO
Bold	Exceeds the RRSCO asnd UUSCO

Table 1B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
SVOCs														
Total TIC Compounds	NC	NC	0.429 J	ND	0.39 J	0.484 J	1.97 J	ND	11.9 J	5.88 J	0.363 J	0.314 J	1.28 J	ND
1,2,4,5-Tetrachlorobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	100	1.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	49	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	13	1.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,5-Trichlorophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4,6-Trichlorophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dichlorophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dimethylphenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,4-Dinitrotoluene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2,6-Dinitrotoluene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chloronaphthalene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Chlorophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Methylnaphthalene	NC	NC	ND	ND	ND	ND	ND	ND	ND	0.19 J	0.024 J	ND	ND	ND
2-Methylphenol	100	0.33	ND	ND	*ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitroaniline	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Nitrophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3,3'-Dichlorobenzidine	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
3-Methylphenol/4-Methylphenol	100	0.33	ND	ND	*ND*	ND	0.041 J	ND	ND	0.033 J	ND	ND	ND	ND
3-Nitroaniline	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,6-Dinitro-o-cresol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Bromophenyl phenyl ether	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chloroaniline	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Chlorophenyl phenyl ether	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitroaniline	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Nitrophenol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acenaphthene	100	20	ND	ND	ND	0.048 J	ND	ND	ND	0.21	0.042 J	ND	ND	ND
Acenaphthylene	100	100	ND	ND	ND	ND	ND	ND	ND	0.46	0.086 J	ND	ND	ND
Acetophenone	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Anthracene	100	100	ND	ND	ND	0.093 J	ND	ND	ND	0.73	0.15	ND	ND	ND
Benzo(a)anthracene	1	1	0.068 J	ND	0.19 J	0.22	ND	0.042 J	0.051 J	**2**	0.42	ND	ND	0.064 J
Benzo(a)pyrene	1	1	0.056 J	ND	0.22 J	0.18	ND	ND	ND	**1.9**	0.39	ND	ND	0.055 J
Benzo(b)fluoranthene	1	1	0.07 J	ND	0.27 J	0.22	ND	0.041 J	0.048 J	**2.5**	0.51	ND	ND	0.077 J
Benzo(ghi)perylene	100	100	0.034 J	ND	0.17 J	0.11 J	ND	ND	0.021 J	1.3	0.24	ND	ND	0.037 J
Benzo(k)fluoranthene	3.9	0.8	ND	ND	0.091 J	0.08 J	ND	ND	ND	***0.83***	0.15	ND	ND	ND
Benzoic Acid	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

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Table 1B
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124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
SVOCs														
Benzyl Alcohol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Biphenyl	NC	NC	ND	ND	ND	ND	ND	ND	ND	0.059 J	ND	ND	ND	ND
Bis(2-chloroethoxy)methane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroethyl)ether	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-chloroisopropyl)ether	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bis(2-ethylhexyl)phthalate	NC	NC	ND	ND	ND	ND	ND	ND	0.084 J	0.086 J	0.098 J	ND	ND	ND
Butyl benzyl phthalate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Carbazole	NC	NC	ND	ND	ND	0.048 J	ND	ND	ND	0.31	0.055 J	ND	ND	ND
Chrysene	3.9	1	0.059 J	ND	0.19 J	0.21	ND	0.037 J	0.049 J	***1.8***	0.38	ND	ND	0.068 J
Di-n-butylphthalate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Di-n-octylphthalate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dibenzo(a,h)anthracene	0.33	0.33	ND	ND	ND	0.028 J	ND	ND	ND	0.28	0.057 J	ND	ND	ND
Dibenzofuran	59	7	ND	ND	ND	0.03 J	ND	ND	ND	0.25	0.037 J	ND	ND	ND
Diethyl phthalate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dimethyl phthalate	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Fluoranthene	100	100	0.13	ND	0.33	0.45	ND	0.062 J	0.087 J	4.1	0.98	0.031 J	0.026 J	0.14
Fluorene	100	30	ND	ND	ND	0.044 J	ND	ND	ND	0.29	0.058 J	ND	ND	ND
Hexachlorobenzene	1.2	0.33	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachlorocyclopentadiene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Hexachloroethane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	0.5	0.5	0.033 J	ND	0.16 J	0.11 J	ND	ND	ND	**1.1**	0.26	ND	ND	0.041 J
Isophorone	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
n-Nitrosodi-n-propylamine	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Naphthalene	100	12	ND	ND	ND	0.032	ND	ND	ND	0.36	0.039 J	ND	ND	ND
NDPA/DPA	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Nitrobenzene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
p-Chloro-m-cresol	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pentachlorophenol	6.7	0.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Phenanthrene	100	100	0.11	ND	0.12 J	0.46	ND	0.039 J	0.076 J	3.4	0.68	ND	ND	0.1 J
Phenol	100	0.33	ND	ND	*ND*	ND	ND	ND	ND	ND	ND	ND	ND	ND
Pyrene	100	100	0.12	ND	0.35	0.42	ND	0.061 J	0.084 J	3.6	0.84	0.03 J	0.023 J	0.13
Total SVOCs			0.68	-	2.091	2.783	0.041	0.282	0.5	25.788	5.496	0.061	0.049	0.712

Notes:

ft-bgs = feet below ground surface

ft-bbg = feet below basement grade

All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

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SVOCs = Semi-Volatile Organic Compounds

J = Estimated concentration below laboratory reporting limit

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

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P - The RPD between the results for the two columns exceeds the method-specified criteria.

R1 = Re-run

All analytical results for soil in milligrams per kilogram (mg/kg)

NC = No Criteria

UUSCO = NYSDEC's December 2006 Unrestricted Use Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

RRSCO = NYSDEC's December 2006 Residential Restricted Soil Cleanup Objectives (6 NYCRR Part 375 w/ CP-51)

Italic	Reporting Limit Exceeds Criteria
Bold and Italic	Exceeds the UUSCO
Bold	Exceeds the RRSCO asnd UUSCO

MATRIXNEWORLD
Engineering Progress

Table 1B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
Pesticides														
4,4'-DDD	13	0.0033	ND	ND	ND	0.00104 JIP	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDE	8.9	0.0033	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4,4'-DDT	7.9	0.0033	ND	*ND*	*ND*	0.00236	*ND*	ND	ND	***0.0117***	***0.00916***	***0.0129***	*ND*	*ND*
Aldrin	0.097	0.005	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Alpha-BHC	0.48	0.02	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Beta-BHC	0.36	0.036	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlordane	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
cis-Chlordane	4.2	0.094	ND	ND	ND	ND	ND	ND	ND	0.00238 IP	ND	0.00266 IP	ND	ND
Delta-BHC	100	0.04	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Dieldrin	0.2	0.005	ND	ND	ND	ND	ND	ND	ND	0.00463	ND	ND	ND	ND
Endosulfan I	24	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan II	24	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endosulfan sulfate	24	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin	11	0.014	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin aldehyde	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Endrin ketone	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor	2.1	0.042	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Heptachlor epoxide	NC	NC	ND	ND	ND	ND	ND	ND	ND	0.00174 JIP	ND	ND	ND	ND
Lindane	1.3	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methoxychlor	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toxaphene	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
trans-Chlordane	NC	NC	ND	ND	ND	ND	ND	ND	ND	0.0053 IP	ND	0.00415 IP	ND	ND

Notes:

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All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

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MATRIXNEWORLD
Engineering Progress

Table 1B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Analytical Results May 2019

Sample ID:	RRSCO - Restricted Residential w/CP-51 (6 NYCRR 375-6 12/06)	UUSCO - Unrestricted Use w/CP-51 (6 NYCRR 375-6 12/06)	SB-01 (7-9') (2019)	SB-01 (16-18') (2019)	SB-03 (0-2') (2019)	SB-05 (14.5-16.5') (2019)	SB-05 (16.5-17.5') (2019)	SB-06 (3-5') (2019)	SB-06 (16-18') (2019)	SB-07 (0-2') (2019)	SB-07 (20-22') (2019)	SB-08 (11-13') (2019)	SB-08 (15-17') (2019)	DUP SOIL
Lab Sample ID:			L1918648-02	L1918648-01	L1917775-01	L1918287-01	L1918287-02	L1918648-04	L1918648-02	L1918008-01	L1918008-02	L1918287-04	L1918287-05	L1918648-05
Date Sampled:			5/4/2019	5/4/2019	4/30/2019	5/2/2019	5/2/2019	5/4/2019	5/4/2019	5/1/2019	5/1/2019	5/2/2019	5/2/2019	5/4/2019
Sample Depth:			7-9 ft-bgs	16-18 ft-bgs	0-2 ft-bbg	14.5-16.5 bgs	16.5-17.5 bgs	3-5 ft-bgs	16-18 ft-bgs	0-2 bgs	20-22 bgs	11-13 bgs	15-17 bgs	
PCBs														
Aroclor 1016	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1221	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1232	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1242	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1248	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1254	1	0.1	ND	ND	ND	ND	ND	ND	ND	0.0189 J	0.00558 J	ND	ND	ND
Aroclor 1260	1	0.1	ND	ND	0.0197 J	ND	ND	ND	ND	0.0104 J	ND	0.0195 JP	ND	ND
Aroclor 1262	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Aroclor 1268	1	0.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00633 J	ND	ND
PCBs, Total	1	0.1	ND	ND	0.0197 J	ND	ND	ND	ND	0.0293 J	0.00558 J	0.0258 J	ND	ND
Metals														
Aluminum, Total	NC	NC	4160	8880	6940	6020	10400	3660	4170	7020	4300	3870	10700	5410
Antimony, Total	NC	NC	2.71 J	0.911 J	1.48 J	0.537 J	0.828 J	0.742 J	0.515 J	2.16 J	1.47 J	ND	0.74 J	3.31 J
Arsenic, Total	16	13	2.1	2.86	8.5	2.77	2.99	2.16	2.89	3.08	2.78	1.12	1.83	3.66
Barium, Total	400	350	53.9	52.9	68.9	72.3	103	46.7	33.4	149	63.7	29.4	31.5	60
Beryllium, Total	72	7.2	0.237 J	0.398 J	0.378 J	0.273 J	0.585	0.224 J	0.253 J	0.36 J	0.229 J	0.204 J	0.39 J	0.299 J
Cadmium, Total	4.3	2.5	ND	ND	0.557 J	ND	ND	ND	ND	0.694 J	0.348 J	ND	ND	ND
Calcium, Total	NC	NC	3180	1740	39000	6210	5270	10200	15700	12300	36600	704	738	3500
Chromium, Total	110	1	***9.6***	***12.9***	***22***	***17***	***21.9***	***12.7***	***14.5***	***16.7***	***11***	***10.6***	***16.6***	***15.6***
Cobalt, Total	NC	NC	4.08	5.32	7.56	6	8.34	4.21	5.06	9.08	3.53	4.48	4.41	5.47
Copper, Total	270	50	14.6	9.46	40.3	15.9	28.6	15.7	14.8	30.3	14.1	15	10.8	18.4
Iron, Total	NC	NC	7400	13300	14700	11700	14400	8630	9270	16500	8820	9560	12200	10200
Lead, Total	400	63	39.1	17.8	60.6	47.5	***78.6***	***319***	43.1	***119***	***77.2***	14.1	7.95	43.9
Magnesium, Total	NC	NC	2190	1850	17900	2320	3480	3090	2810	5160	16300	1230	2370	2510
Manganese, Total	2000	1600	204	285	320	284	539	250	242	519	224	198	89.9	311
Mercury, Total	0.81	0.18	***0.498***	0.116	***0.36***	0.048 J	***0.613***	0.098	0.015 J	***0.245***	***0.697***	ND	ND	0.132
Nickel, Total	310	30	18.1	12	22.8	17.6	***36.2***	19.8	28.6	18.4	10.2	10.4	12.6	22.5
Potassium, Total	NC	NC	588	547	1830	1120	1520	752	902	2510	1010	876	521	896
Selenium, Total	180	3.9	ND	0.304 J	0.312 J	0.683 J	0.653 J	0.311 J	ND	0.54 J	0.416 J	ND	0.49 J	ND
Silver, Total	180	2	ND	ND	ND	ND	ND	ND	ND	0.249 J	ND	ND	ND	ND
Sodium, Total	NC	NC	121 J	219	236	137	250	209	330	776	441	312	268	220
Thallium, Total	NC	NC	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vanadium, Total	NC	NC	12.5	16.2	34.7	17.4	23.8	12.2	15.1	22.9	14.4	12.5	19.6	17.8
Zinc, Total	10,000	109	42.3	26.6	69.3	52.2	43.6	37.3	26	***153***	***187***	104	25.9	44.8
Wet Chemistry														
Cyanide, Total	27	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Solids, Total	NC	NC	88.9	80.6	83.1	80.2	80.3	90.1	90.3	90.4	89.2	86.9	77	87.2

Notes:

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All sample depths presented in ft-bbg

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Table 2
Manhattan Detention Center
124-125 White Street, New York, New York
Ground Water Analytical Results May 2019

MATRIXNEWORLD Engineering Progress

Sample ID:	NY TOGS Class GA Groundwater Standards (NYSDEC 6/2004)	GW-01	GW-05	GW-06	GW-07	GW-DUP	FIELD BLANK	TRIP BLANK
Lab Sample ID:		L1918648-06	L1918287-03	L1918648-07	L1918008-03	L1918008-04	L1918008-05	L1918008-06
Date Sampled:		5/4/2019	5/2/2019	5/4/2019	5/1/2019	5/1/2019	5/1/2019	5/1/2019
VOCs								
Total TICs	NC	ND	ND	ND	1.36 J	ND	ND	ND
1,1,1,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	1	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
1,1-Dichloroethane	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloropropene	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,3-Trichloropropane	0.04	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
1,2,4,5-Tetramethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-chloropropane	0.04	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
1,2-Dibromoethane	0.0006	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	0.6	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene, Total	NC	ND	ND	2.5	ND	ND	ND	ND
1,2-Dichloropropane	1	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
1,3,5-Trimethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
1,3-Dichloropropene, Total	NC	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NC	ND	ND	ND	ND	ND	ND	ND
2,2-Dichloropropane	5	ND	ND	ND	ND	ND	ND	ND
2-Butanone	50	ND	ND	ND	ND	ND	ND	ND
2-Hexanone	50	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone	NC	ND	ND	ND	ND	ND	ND	ND
Acetone	50	5.1	4.8 J	8.1	7.4	3.9 J	ND	ND
Acrylonitrile	5	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
Benzene	1	ND	ND	0.16 J	ND	ND	ND	ND
Bromobenzene	5	ND	ND	ND	ND	ND	ND	ND
Bromochloromethane	5	ND	ND	ND	ND	ND	ND	ND
Bromodichloromethane	50	ND	ND	0.2 J	ND	ND	ND	ND
Bromoform	50	ND	ND	ND	ND	ND	ND	ND
Bromomethane	5	ND	ND	ND	ND	ND	ND	ND
Carbon disulfide	60	ND	ND	ND	ND	ND	ND	ND
Carbon tetrachloride	5	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	5	ND	ND	ND	ND	ND	ND	ND
Chloroethane	5	ND	ND	ND	ND	ND	ND	ND
Chloroform	7	ND	ND	**7.2**	ND	ND	ND	ND
Chloromethane	NC	ND	ND	ND	ND	ND	ND	ND
cis-1,2-Dichloroethene	5	ND	ND	2.5	ND	ND	ND	ND
cis-1,3-Dichloropropene	0.4	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
Dibromochloromethane	50	ND	ND	ND	ND	ND	ND	ND
Dibromomethane	5	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
Dichlorodifluoromethane	5	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
Ethyl ether	NC	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Hexachlorobutadiene	0.5	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
Isopropylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Methyl tert butyl ether	10	ND	ND	ND	ND	ND	ND	ND

Notes:

ft-bgs = feet below ground surface

PCBs = Polychlorinated Biphenyls

ft-bbg = feet below basement grade

All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

TICs = Tentatively Identified Compounds

SVOCs = Semi-Volatile Organic Compounds

J = Estimated concentration below laboratory reporting limit

P - The RPD between the results for the two columns exceeds the method-specified criteria.

NC = No Criteria

All analytical results for groundwater in milligrams per liter (mg/L)

Italic	Reporting Limit Exceeds Criteria
Bold	Exceeds the NYS TAGM

Table 2
Manhattan Detention Center
124-125 White Street, New York, New York
Ground Water Analytical Results May 2019

Sample ID:	NY TOGS Class GA Groundwater Standards (NYSDEC 6/2004)	GW-01	GW-05	GW-06	GW-07	GW-DUP	FIELD BLANK	TRIP BLANK
Lab Sample ID:		L1918648-06	L1918287-03	L1918648-07	L1918008-03	L1918008-04	L1918008-05	L1918008-06
Date Sampled:		5/4/2019	5/2/2019	5/4/2019	5/1/2019	5/1/2019	5/1/2019	5/1/2019
VOCs								
Methylene chloride	5	ND	ND	ND	ND	ND	ND	ND
n-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
n-Propylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Naphthalene	10	ND	ND	ND	ND	ND	ND	ND
o-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
o-Xylene	5	1.5 J	ND	ND	ND	ND	ND	ND
p-Chlorotoluene	5	ND	ND	ND	ND	ND	ND	ND
p-Diethylbenzene	NC	ND	ND	ND	ND	ND	ND	ND
p-Ethyltoluene	NC	ND	ND	ND	ND	ND	ND	ND
p-Isopropyltoluene	5	ND	ND	ND	ND	ND	ND	ND
p/m-Xylene	5	2.1 J	ND	ND	ND	ND	ND	ND
sec-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Styrene	930	ND	ND	ND	ND	ND	ND	ND
tert-Butylbenzene	5	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5	ND	ND	0.46 J	ND	ND	ND	ND
Toluene	5	ND	ND	ND	ND	ND	ND	ND
trans-1,2-Dichloroethene	5	ND	ND	ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	0.4	ND	*ND*	ND	*ND*	*ND*	*ND*	*ND*
trans-1,4-Dichloro-2-butene	5	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5	ND	ND	1.2	ND	ND	ND	ND
Trichlorofluoromethane	5	ND	ND	ND	ND	ND	ND	ND
Vinyl acetate	NC	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	2	ND	ND	0.1 J	ND	ND	ND	ND
Xylenes, Total	NC	3.6 J	ND	ND	ND	ND	ND	ND
Total VOCs	NC	8.7	4.8	22.42	7.4	3.9	-	-
Total TIC Compounds	NC	72.9 J	334 J	174 J	14.7 J	23 J	20.3 J	NA
SVOCs								
1,2,4,5-Tetrachlorobenzene	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
1,2,4-Trichlorobenzene	5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
1,2-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	NA
1,3-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	NA
1,4-Dichlorobenzene	3	ND	ND	ND	ND	ND	ND	NA
2,4,5-Trichlorophenol	NC	*ND*	ND	*ND*	ND	ND	ND	NA
2,4,6-Trichlorophenol	NC	ND	ND	ND	ND	ND	ND	NA
2,4-Dichlorophenol	2	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
2,4-Dimethylphenol	2	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
2,4-Dinitrophenol	2	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
2,4-Dinitrotoluene	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
2,6-Dinitrotoluene	5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
2-Chlorophenol	NC	ND	ND	ND	ND	ND	ND	NA
2-Methylphenol	NC	*ND*	ND	*ND*	ND	ND	ND	NA
2-Nitroaniline	5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
2-Nitrophenol	NC	*ND*	ND	*ND*	ND	ND	ND	NA
3,3'-Dichlorobenzidine	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
3-Methylphenol/4-Methylphenol	NC	ND	ND	ND	ND	ND	ND	NA
3-Nitroaniline	5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
4,6-Dinitro-o-cresol	NC	ND	ND	ND	ND	ND	ND	NA
4-Bromophenyl phenyl ether	NC	ND	ND	ND	ND	ND	ND	NA
4-Chloroaniline	5	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
4-Chlorophenyl phenyl ether	NC	ND	ND	ND	ND	ND	ND	NA
4-Nitroaniline	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
4-Nitrophenol	NC	*ND*	ND	*ND*	ND	ND	ND	NA
Acetophenone	NC	ND	ND	ND	ND	ND	ND	NA

Notes:

ft-bgs = feet below ground surface

PCBs = Polychlorinated Biphenyls

ft-bbg = feet below basement grade

All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

TICs = Tentatively Identified Compounds

SVOCs = Semi-Volatile Organic Compounds

J = Estimated concentration below laboratory reporting limit

P - The RPD between the results for the two columns exceeds the method-specified criteria.

NC = No Criteria

All analytical results for groundwater in milligrams per liter (mg/L)

Italic	Reporting Limit Exceeds Criteria
Bold	Exceeds the NYS TAGM

Table 2
Manhattan Detention Center
124-125 White Street, New York, New York
Ground Water Analytical Results May 2019

MATRIXNEWORLD Engineering Progress

Sample ID:	NY TOGS Class GA Groundwater Standards (NYSDEC 6/2004)	GW-01	GW-05	GW-06	GW-07	GW-DUP	FIELD BLANK	TRIP BLANK
Lab Sample ID:		L1918648-06	L1918287-03	L1918648-07	L1918008-03	L1918008-04	L1918008-05	L1918008-06
Date Sampled:		5/4/2019	5/2/2019	5/4/2019	5/1/2019	5/1/2019	5/1/2019	5/1/2019
SVOCs								
Benzoic Acid	NC	*ND*	ND	19 J	ND	ND	ND	NA
Benzyl Alcohol	NC	ND	ND	ND	ND	ND	ND	NA
Biphenyl	NC	ND	ND	ND	ND	ND	ND	NA
Bis(2-chloroethoxy)methane	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Bis(2-chloroethyl)ether	1	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Bis(2-chloroisopropyl)ether	5	ND	ND	ND	ND	ND	ND	NA
Bis(2-ethylhexyl)phthalate	5	ND	**6.5**	3.6 J	ND	1.7 J	ND	NA
Butyl benzyl phthalate	50	ND	ND	ND	ND	ND	ND	NA
Carbazole	NC	ND	ND	ND	ND	ND	ND	NA
Di-n-butylphthalate	50	ND	ND	ND	ND	ND	ND	NA
Di-n-octylphthalate	50	ND	ND	ND	ND	ND	ND	NA
Dibenzofuran	NC	ND	ND	ND	ND	ND	ND	NA
Diethyl phthalate	50	ND	ND	ND	ND	ND	ND	NA
Dimethyl phthalate	50	ND	ND	ND	ND	ND	ND	NA
Hexachlorocyclopentadiene	5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Isophorone	50	ND	ND	ND	ND	ND	ND	NA
n-Nitrosodi-n-propylamine	NC	ND	ND	ND	ND	ND	ND	NA
NDPA/DPA	50	ND	ND	ND	ND	ND	ND	NA
Nitrobenzene	0.4	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
p-Chloro-m-cresol	NC	ND	ND	ND	ND	ND	ND	NA
Phenol	2	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
2-Chloronaphthalene	10	ND	ND	ND	ND	ND	ND	NA
2-Methylnaphthalene	NC	0.14	0.02 J	0.15	ND	ND	ND	NA
Acenaphthene	20	0.05 J	0.3	ND	0.06 J	0.08 J	ND	NA
Acenaphthylene	NC	0.03 J	ND	ND	ND	ND	ND	NA
Anthracene	50	0.06 J	ND	0.11 J	ND	0.01 J	ND	NA
Benzo(a)anthracene	0.002	**0.05 J**	*ND*	**0.08 J**	*ND*	*ND*	*ND*	NA
Benzo(a)pyrene	0.002	**0.05 J**	**0.03 J**	**0.05 J**	*ND*	*ND*	*ND*	NA
Benzo(b)fluoranthene	0.002	**0.07 J**	**0.04 J**	**0.07 J**	*ND*	*ND*	*ND*	NA
Benzo(ghi)perylene	NC	0.06 J	0.09	0.04	ND	ND	ND	NA
Benzo(k)fluoranthene	0.002	**0.03 J**	**0.06 J**	**0.02 J**	*ND*	*ND*	*ND*	NA
Chrysene	0.002	**0.04 J**	**0.02 J**	**0.06 J**	*ND*	*ND*	*ND*	NA
Dibenzo(a,h)anthracene	NC	0.02 J	0.13	ND	ND	ND	ND	NA
Fluoranthene	50	0.06 J	ND	0.19	0.03 J	0.03 J	ND	NA
Fluorene	50	0.06 J	0.02 J	0.05 J	0.02 J	0.02 J	ND	NA
Hexachlorobenzene	0.04	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
Hexachlorobutadiene	0.5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Hexachloroethane	5	ND	ND	ND	ND	ND	ND	NA
Indeno(1,2,3-cd)pyrene	0.002	**0.06 J**	**0.09 J**	**0.04 J**	*ND*	*ND*	*ND*	NA
Naphthalene	10	0.45	ND	0.13	0.05 J	ND	ND	NA
Pentachlorophenol	2	ND	ND	*ND*	ND	ND	ND	NA
Phenanthrene	50	0.11 J	0.04 J	0.18	0.06 J	0.06 J	ND	NA
Pyrene	50	0.06 J	ND	0.16	0.02 J	0.02 J	ND	NA
Total SVOCs	NC	1.4	7.34	23.93	0.24	1.92	-	NA

Notes:

ft-bgs = feet below ground surface

PCBs = Polychlorinated Biphenyls

ft-bbg = feet below basement grade

All sample depths presented in ft-bbg

VOCs = Volatile Organic Compounds

TICs = Tentatively Identified Compounds

SVOCs = Semi-Volatile Organic Compounds

J = Estimated concentration below laboratory reporting limit

P - The RPD between the results for the two columns exceeds the method-specified criteria.

NC = No Criteria

All analytical results for groundwater in milligrams per liter (mg/L)

Italic	Reporting Limit Exceeds Criteria
Bold	Exceeds the NYS TAGM

Table 2
Manhattan Detention Center
124-125 White Street, New York, New York
Ground Water Analytical Results May 2019

MATRIXNEWORLD
Engineering Progress

Sample ID:	NY TOGS Class GA Groundwater Standards (NYSDEC 6/2004)	GW-01	GW-05	GW-06	GW-07	GW-DUP	FIELD BLANK	TRIP BLANK
Lab Sample ID:		L1918648-06	L1918287-03	L1918648-07	L1918008-03	L1918008-04	L1918008-05	L1918008-06
Date Sampled:		5/4/2019	5/2/2019	5/4/2019	5/1/2019	5/1/2019	5/1/2019	5/1/2019
Pesticides								
4,4'-DDD	0.3	*ND*	ND	*ND*	ND	ND	ND	NA
4,4'-DDE	0.2	*ND*	ND	*ND*	ND	ND	ND	NA
4,4'-DDT	0.2	0.007 JIP	ND	*ND*	ND	0.009 JP	ND	NA
Aldrin	0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
Alpha-BHC	0.01	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Beta-BHC	0.04	ND	ND	ND	ND	ND	ND	NA
Chlordane	0.05	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
cis-Chlordane	NC	ND	ND	ND	ND	ND	ND	NA
Delta-BHC	0.04	ND	ND	ND	ND	ND	ND	NA
Dieldrin	0.004	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
Endosulfan I	NC	ND	ND	ND	ND	ND	ND	NA
Endosulfan II	NC	ND	ND	ND	ND	ND	ND	NA
Endosulfan sulfate	NC	ND	ND	ND	ND	ND	ND	NA
Endrin	0	*ND*	*ND*	*ND*	*ND*	*ND*	*ND*	NA
Endrin aldehyde	5	ND	ND	ND	ND	ND	ND	NA
Endrin ketone	5	ND	ND	ND	ND	ND	ND	NA
Heptachlor	0.04	*ND*	ND	*ND*	ND	ND	ND	NA
Heptachlor epoxide	0.03	*ND*	ND	*ND*	ND	ND	ND	NA
Lindane	0.05	ND	ND	ND	ND	ND	ND	NA
Methoxychlor	35	ND	ND	ND	ND	ND	ND	NA
Toxaphene	0.06	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
trans-Chlordane	NC	ND	ND	ND	ND	ND	ND	NA
PCBs								
Aroclor 1016	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1221	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1232	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1242	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1248	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1254	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1260	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1262	0.09	*ND*	ND	ND	ND	ND	ND	NA
Aroclor 1268	0.09	*ND*	ND	ND	ND	ND	ND	NA
PCBs, Total	NC	ND	ND	ND	ND	ND	ND	NA

Notes:

ft-bgs = feet below ground surface
PCBs = Polychlorinated Biphenyls
ft-bbg = feet below basement grade
All sample depths presented in ft-bbg
VOCs = Volatile Organic Compounds
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All analytical results for groundwater in milligrams per liter (mg/L)

Italic	Reporting Limit Exceeds Criteria
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Table 2
Manhattan Detention Center
124-125 White Street, New York, New York
Ground Water Analytical Results May 2019

Sample ID:	NY TOGS Class GA Groundwater Standards (NYSDEC 6/2004)	GW-01	GW-05	GW-06	GW-07	GW-DUP	FIELD BLANK	TRIP BLANK
Lab Sample ID:		L1918648-06	L1918287-03	L1918648-07	L1918008-03	L1918008-04	L1918008-05	L1918008-06
Date Sampled:		5/4/2019	5/2/2019	5/4/2019	5/1/2019	5/1/2019	5/1/2019	5/1/2019
Dissolved Metals								
Aluminum, Dissolved	2000	56.3	25.1	216	22	11	3.62 J	NA
Antimony, Dissolved	6	2.01 J	1.87 J	4.55	**8.91**	2.65 J	0.67 J	NA
Arsenic, Dissolved	50	1.6	2.38	3.08	7.25	4.29	ND	NA
Barium, Dissolved	2000	82.99	357.4	52.09	167.4	323.2	0.2 J	NA
Beryllium, Dissolved	3	ND	ND	ND	ND	ND	ND	NA
Cadmium, Dissolved	10	ND	ND	ND	ND	ND	ND	NA
Calcium, Dissolved	NC	82700	155000	188000	89400	133000	115	NA
Chromium, Dissolved	100	4.7	1.46	0.56 J	0.22 J	ND	0.66 J	NA
Cobalt, Dissolved	NC	0.51	1.14	0.45 J	0.25 J	0.34 J	ND	NA
Copper, Dissolved	1000	4.73	ND	7.6	0.57 J	ND	0.42 J	NA
Iron, Dissolved	600	217	**4200**	106	34.2 J	ND	ND	NA
Lead, Dissolved	50	ND	ND	0.37 J	ND	ND	ND	NA
Magnesium, Dissolved	35000	7630	**38900**	3880	14700	22400	32.2 J	NA
Manganese, Dissolved	600	60.81	**1901**	5.16	145.6	**629.7**	ND	NA
Mercury, Dissolved	1.4	ND	ND	ND	ND	ND	ND	NA
Nickel, Dissolved	200	2.41	5.88	1.71 J	2.15	1.76 J	ND	NA
Potassium, Dissolved	NC	20100	33100	16800	21500	20100	ND	NA
Selenium, Dissolved	20	ND	ND	2.83 J	ND	ND	ND	NA
Silver, Dissolved	100	ND	ND	ND	ND	ND	ND	NA
Sodium, Dissolved	NC	371000	315000	205000	570000	507000	510	NA
Thallium, Dissolved	0.5	ND	*ND*	ND	*ND*	*ND*	*ND*	NA
Vanadium, Dissolved	NC	4.37 J	ND	11.8	17.07	9.56	ND	NA
Zinc, Dissolved	5000	ND	9.67 J	ND	3.51 J	ND	ND	NA
Total Metals								
Aluminum, Total	2000	**240000**	**91400**	**626000**	**158000**	**99100**	ND	NA
Antimony, Total	6	3.06 J	1 J	8.79	1.83 J	1.63 J	0.97 J	NA
Arsenic, Total	50	43.96	31.06	**150.7**	**137.3**	**70.26**	ND	NA
Barium, Total	2000	**9697**	857.2	**9092**	**6123**	**2893**	0.54 J	NA
Beryllium, Total	3	**27.47**	**8.26**	**37.66**	**30.85**	**15.2**	ND	NA
Cadmium, Total	10	6.51	0.8	**12.5**	**12.53**	5.13	ND	NA
Calcium, Total	NC	551000	152000	1030000	718000	275000	49.2 J	NA
Chromium, Total	100	**951.2**	**267.3**	**1927**	**845.5**	**387.5**	0.82 J	NA
Cobalt, Total	NC	557.4	55.04	781.7	272.9	136.2	ND	NA
Copper, Total	1000	1661	368.2	2767	**2085**	**1291**	1.29	NA
Iron, Total	600	**321000**	**92200**	**808000**	**418000**	**212000**	19.1 J	NA
Lead, Total	50	**11780**	**127.2**	**6799**	**4031**	**1606**	ND	NA
Magnesium, Total	35000	**134000**	**51900**	**230000**	**200000**	**104000**	ND	NA
Manganese, Total	600	**72670**	**2805**	**46040**	**41610**	**16360**	ND	NA
Mercury, Total	1.4	**2.07**	ND	0.32	**2.29**	**2.24**	ND	NA
Nickel, Total	200	**1951**	**223.8**	**2098**	**1432**	**731.8**	ND	NA
Potassium, Total	NC	65400	34500	101000	51200	35500	81.7 J	NA
Selenium, Total	20	**77.8**	**30**	**98.5**	**112**	**64**	ND	NA
Silver, Total	100	4.36	0.39 J	11.81	3.66	1.87	ND	NA
Sodium, Total	NC	374000	300000	202000	444000	448000	181	NA
Thallium, Total	0.5	**2.41**	**0.74**	**6.53**	**3**	**2.07**	*ND*	NA
Vanadium, Total	NC	407.4	287.3	1331	856	400.1	ND	NA
Zinc, Total	5000	2292	293.5	4676	**7626**	2885	ND	NA
Wet Chemistry								
Cyanide, Total	400	7	ND	ND	3 J	3 J	ND	NA

Notes:

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ft-bbg = feet below basement grade

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VOCs = Volatile Organic Compounds

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SVOCs = Semi-Volatile Organic Compounds

J = Estimated concentration below laboratory reporting limit

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NC = No Criteria

All analytical results for groundwater in milligrams per liter (mg/L)

Italic	Reporting Limit Exceeds Criteria
Bold	Exceeds the NYS TAGM

Table 3A
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Vapor Analytical Results October 2018

MATRIXNEWORLD
Engineering Progress

Client Sample ID:	NYSDOH Soil Vapor Guidance	SV-01 (2018)	SV-04
Lab Sample ID:		AD06924-002	AD06924-001
Date Sampled:		10/4/2018	10/4/2018
Sample Depth (ft-bbg):		3.0	4.5
VOCs			
Acetone (2-propanone)	NC	138.25	188.14
Benzene	NC	35.14	29.07
Benzyl Chloride	NC	ND	ND
Bromodichloromethane	NC	ND	7.37
Bromoethene	NC	ND	ND
Bromoform	NC	ND	ND
Bromomethane (Methyl bromide)	NC	ND	ND
1,3-Butadiene	NC	30.67	ND
2-Butanone (Methyl ethyl ketone)	NC	19.00	26.54
Carbon disulfide	NC	ND	21.18
Carbon tetrachloride	NC	ND	ND
Chlorobenzene	NC	ND	ND
Chloroethane	NC	207.06	ND
Chloroform	NC	ND	111.83
Chloromethane (Methyl chloride)	NC	ND	0.13
3-Chloropropene (allyl chloride)	NC	ND	ND
2-Chlorotoluene (o-Chlorotoluene)	NC	2.82	ND
Cyclohexane	NC	ND	3.13
Dibromochloromethane	NC	ND	ND
1,2-Dibromoethane	NC	ND	ND
1,2-Dichlorobenzene	NC	ND	ND
1,3-Dichlorobenzene	NC	ND	ND
1,4-Dichlorobenzene	NC	11.87	ND
Dichlorodifluoromethane	NC	ND	ND
1,1-Dichloroethane	NC	ND	ND
1,2-Dichloroethane	NC	ND	ND
1,1-Dichloroethene	NC	ND	ND
1,2-Dichloroethene (cis)	NC	ND	ND
1,2-Dichloroethene (trans)	NC	ND	ND
1,2-Dichloropropane	NC	ND	ND
cis-1,3-Dichloropropene	NC	ND	ND
trans-1,3-Dichloropropene	NC	ND	ND
1,2-Dichlorotetrafluoroethane (Freon 114)	NC	ND	ND
1,4-Dioxane	NC	ND	ND
Ethanol	NC	17.90	113.06
Ethylbenzene	NC	75.14	102.94
4-Ethyltoluene (p-Ethyltoluene)	NC	57.52	31.46
Ethyl Acetate	NC	ND	6.12
n-Heptane	NC	12.29	22.54
Hexachlorobutadiene	NC	ND	ND
n-Hexane	NC	10.57	15.15
2-Hexanone	NC	4.50	ND
Isopropyl Alcohol	NC	14.99	48.42
Methylmethacrylate	NC	ND	ND
Methylene chloride	60	0.20	ND
4-Methyl-2-pentanone (MIBK)	NC	10.66	3.48
MTBE (Methyl tert-butyl ether)	NC	ND	ND
Propylene	NC	10.65	ND
Styrene	NC	1.66 J	1.96 J
Tertiary butyl alcohol (TBA)	NC	15.76	ND
1,1,2,2-Tetrachloroethane	NC	ND	ND
Tetrachloroethene (PCE)	30	2.03	2.85
Tetrahydrofuran	NC	ND	1.71 J
Toluene	NC	233.27	486.14
1,2,4-Trichlorobenzene	NC	ND	ND
1,1,1-Trichloroethane	NC	ND	ND
1,1,2-Trichloroethane	NC	ND	ND
1,1,2-Trichloro-1,2,2-trifluoroethane	NC	ND	ND
Trichloroethene (TCE)	2	ND	ND
Trichlorofluoromethane (Freon 11)	NC	19.67	ND
1,2,4-Trimethylbenzene	NC	195.66	74.23
1,3,5-Trimethylbenzene	NC	72.27	19.66
2,2,4-Trimethylpentane	NC	8.87	16.35
Vinyl Acetate	NC	7.39	12.31
Vinyl chloride	NC	0.23	ND
Xylenes (m&p)	NC	265.83	379.19
Xylenes (o)	NC	98.60	110.33
Xylenes (total)	NC	363.99	490.82

Notes:
NC = No Criteria
J = Estimated value
ND - Not Detected above laboratory limits
ft-bbg = feet below basement grade
All results are in micrograms per cubic meter (ug/m3)

Table 3B
Manhattan Detention Center
124-125 White Street, New York, New York
Soil Vapor Analytical Results May 2019

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Sample ID:	NYSDOH Soil Vapor Guidance	SV-01 (2019)	SV-01 (2019) Re-Run	SV-03	SV-05	SV-06	SV-07	SV-DUP
Lab Sample ID:		L1918765-01	L1918765-01 R1	L1918383-01	L1918383-02	L1918765-02	L1918383-04	L1918383-03
Date Sampled:		5/4/2019	5/4/2019	5/2/2019	5/2/2019	5/4/2019	5/2/2019	5/2/2019
Sample Depth:		17 ft-bgs	17 ft-bgs	1.5 ft-bbg	16.5 ft-bgs	17 ft-bgs	21 ft-bgs	
VOCs								
1,1,1-Trichloroethane	100	ND		ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	NC	ND		ND	ND	ND	ND	ND
1,1,2-Trichloroethane	NC	ND		ND	ND	ND	ND	ND
1,1-Dichloroethane	NC	ND		ND	ND	ND	ND	ND
1,1-Dichloroethene	6	ND		ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	NC	ND		ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	NC	20.1		12.7	8.55	3.64	13.2	4.35
1,2-Dibromoethane	NC	ND		ND	ND	ND	ND	ND
1,2-Dichlorobenzene	NC	ND		ND	ND	ND	ND	ND
1,2-Dichloroethane	NC	ND		ND	ND	ND	ND	ND
1,2-Dichloropropane	NC	ND		ND	ND	ND	ND	ND
1,3,5-Trimethylbenzene	NC	5.21		3.42	2.18	ND	3.85	1.09
1,3-Butadiene	NC	ND		ND	4.42	1.17	ND	4.34
1,3-Dichlorobenzene	NC	ND		ND	3.85	ND	4.7	3.29
1,4-Dichlorobenzene	NC	ND		ND	ND	ND	ND	ND
1,4-Dioxane	NC	ND		ND	ND	ND	ND	ND
2,2,4-Trimethylpentane	NC	13.9		12.8	4.55	11	5.32	3.9
2-Butanone	NC	304 E	363	17.1	7.9	57.8	43.9	6.61
2-Hexanone	NC	ND		ND	ND	ND	1.41	ND
3-Chloropropene	NC	ND		ND	ND	ND	ND	ND
4-Ethyltoluene	NC	4.24		3.17	1.76	ND	3.08	ND
4-Methyl-2-pentanone	NC	3.51		3.38	3.09	2.36	6.11	2.14
Acetone	NC	276		69.8	59.9	78.6	144	53.2
Benzene	NC	25		28.7	5.43	21	3.87	4.7
Benzyl chloride	NC	ND		ND	ND	ND	ND	ND
Bromodichloromethane	NC	ND		ND	ND	ND	ND	ND
Bromoform	NC	ND		ND	ND	ND	ND	ND
Bromomethane	NC	ND		ND	ND	ND	ND	ND
Carbon disulfide	NC	3.49		39.5	4.67	1.76	42.7	4.36
Carbon tetrachloride	6	ND		ND	ND	ND	ND	ND
Chlorobenzene	NC	ND		ND	ND	ND	ND	ND
Chloroethane	NC	ND		ND	ND	ND	ND	ND
Chloroform	NC	13.8		21.3	ND	ND	13.6	ND
Chloromethane	NC	0.522		ND	0.535	1.04	ND	0.58
cis-1,2-Dichloroethene	6	3.37		ND	ND	ND	ND	ND
cis-1,3-Dichloropropene	NC	ND		ND	ND	ND	ND	ND
Cyclohexane	NC	10.3		9.22	1.58	9.36	1.97	1.25
Dibromochloromethane	NC	ND		ND	ND	ND	ND	ND
Dichlorodifluoromethane	NC	2.41		2.05	1.96	2.7	1.87	1.88
Ethanol	NC	1080 E	1450	202	170	690	328	147
Ethyl Acetate	NC	2.92		ND	ND	4	ND	ND
Ethylbenzene	NC	32.3		14	4.14	10.4	8.04	1.97
Freon-113	NC	ND		ND	ND	ND	ND	ND
Freon-114	NC	ND		ND	ND	ND	ND	ND
Heptane	NC	55.7		38.2	4.43	41.8	8.85	3.01
Hexachlorobutadiene	NC	ND		ND	ND	ND	ND	ND
Isopropanol	NC	14.1		4.65	4.97	15.2	9.76	4.79
Methyl tert butyl ether	NC	ND		ND	ND	ND	ND	ND
Methylene chloride	100	ND		ND	ND	ND	ND	ND
n-Hexane	NC	40.2		54.3	3.34	37.7	4.3	3.12
o-Xylene	NC	41.7		15.4	6.17	11.2	11.9	2.94
p/m-Xylene	NC	119		51.7	14.8	35.1	31.2	6.6
Styrene	NC	ND		ND	ND	ND	ND	ND
Tertiary butyl Alcohol	NC	14		1.73	3.12	11.9	8.79	ND
Tetrachloroethene	100	2.24		1.36	ND	ND	2.18	ND
Tetrahydrofuran	NC	3.04		5.63	4.95	ND	4.16	4.39
Toluene	NC	178		145	16.5	108	29.6	9.2
trans-1,2-Dichloroethene	NC	ND		ND	ND	ND	ND	ND
trans-1,3-Dichloropropene	NC	ND		ND	ND	ND	ND	ND
Trichloroethene	6	5.13		ND	ND	ND	ND	ND
Trichlorofluoromethane	NC	1.61		1.62	1.34	2.72	1.51	1.34
Vinyl bromide	NC	ND		ND	ND	ND	ND	ND
Vinyl chloride	6	ND		ND	ND	ND	ND	ND

Notes:

NC = No Criteria

J = Estimated value

ft-bbg = feet below basement grade

ft-bgs - feet below ground surface

All results are in micrograms per cubic meter (ug/m3)

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

ND- Not Detected above laboratory limits

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APPENDIX A

CONSTRUCTION HEALTH AND SAFETY PLAN