Site Characterization Work Plan
Love Cleaners Site (1-30-187)
Hempstead, Nassau County, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
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(315) 431-4610

October 2008
Revision: FINAL
EA Project No. 14368.34

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6 October 2008
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EA Engineering, P.C.

6 October 2008
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6 October 2008
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CONTENTS

1. INTRODUCTION

1.1 PROJECT BACKGROUND

The New York State Department of Environmental Conservation (NYSDEC) issued EA Engineering, P.C. and its affiliate EA Science and Technology (EA) a Standby Contract Work Assignment to perform a Site Characterization at the Love Cleaners site (NYSDEC Site No. 1-30-187), a potential inactive hazardous waste disposal site. The site consists of a commercial property located at 416 Clinton Street in Hempstead, Nassau County, New York (Figure 1).

The Work Assignment will be conducted under the NYSDEC State Superfund Standby Contract (Work Assignment No. D004438-34). An initial step in the Site Characterization is to prepare a Work Plan which describes the anticipated work activities. The elements of this Work Plan were prepared in accordance with the most recent and applicable guidelines and requirements of the NYSDEC and the New York State Department of Health (NYSDOH).

1.2 DESCRIPTION OF WORK TASKS

The following tasks will be completed as part of the Site Characterization:

- Work plan development and records review
- Geophysical survey and environmental sampling
- Field documentation and reporting.

A brief summary of each activity is provided below and further details of the field activities are provided in Section 3.

1.2.1 Work Plan Development and Records Review (Task 1)

A conference call was conducted on 2 July 2008 to discuss the development of the Project Management Work Plan and the Site Characterization Work Plan. Participants included the NYSDEC Division of Environmental Remediation project manager and the EA program manager, project manager, and site manager. A work plan development meeting was held at the site with the NYSDEC on 23 July 2008 to survey the site and discuss the proposed scope of field activities.

A records review of data provided by the NYSDEC will be completed prior to site investigation field activities. In addition, an environmental records search including Sanborn maps, historical aerial photographs and topographic maps, telephone directories, and federal and state database records provided by Environmental Data Resources, Inc. will also be reviewed prior to the field activities.

1.2.2 Field Investigation (Task 2)

The following tasks are anticipated to be included in the field effort of the site characterization at the Love Cleaners site.

1.2.2.1 Geophysical Survey

A geophysical survey using ground penetrating radar, electromagnetic induction, or other geophysical techniques to locate utilities, drywells, piping, and other subsurface objects buried beneath the pavement. This work will be done prior to other field activities and may be used to re-locate proposed soil and groundwater sampling locations.

1.2.2.2 Soil and Groundwater Investigation

Soil and groundwater investigations will consist of soil boring and hydropunch sampler installation, and soil and groundwater sampling at various locations throughout the targeted area. The protocol for this effort will follow the NYSDEC Division of Environmental Remediation *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, December 2002.

1.2.2.3 Soil Vapor Sampling

Temporary soil vapor points will be installed at locations surrounding the on-site structure. Vapor samples will be collected from each soil vapor sample point location.

1.2.3 Field Documentation and Reporting (Task 3)

Field logbooks, soil boring logs, and groundwater sampling logs will be used during all on-site work. A dedicated field logbook will be maintained by the site manager overseeing the site activities. In addition to the logbook, original sampling forms used during the field activities will be submitted to NYSDEC as part of the final report. Field activities, including installation of the groundwater monitoring wells, will be photo documented.

Upon completion of the field activities, a site characterization report in accordance with Section 3.13 of DER-10 will be prepared and submitted to NYSDEC that includes a summary of field and laboratory analytical data, presents the locations of field samples, and provides a discussion of the findings of the site characterization.

1.3 WORK PLAN ORGANIZATION

This Work Plan is organized into the following sections:

- ***Section 1***—The Introduction describes the overall approach and specific activities that will be performed during the site investigation at the Love Cleaners site.

- ***Section 2***—The Site Background provides a brief site description and history.

- ***Section 3***—The Scope of Work section describes the various field activities to be completed during the investigation.

Field forms are provided in Appendix A. The following two project-specific technical plans were developed for this site investigation and are included as Appendixes B and C:

- The specific procedures for the collection, analysis, and evaluation of data that will be legally and scientifically defensible are presented in the Quality Assurance Project Plan (QAPP) Addendum (Appendix B). Sample forms to be completed during performance of field activities are provided in the QAPP Addendum Attachments.

- The site-specific hazards and levels of protective measures to be implemented in order to protect the safety and health of field personnel are detailed in the site Health and Safety Plan (HASP) Addendum (Appendix C).

2. SITE BACKGROUND

2.1 SITE LOCATION AND DESCRIPTION

The Love Cleaners site is located at 416 Clinton Street in the village/town of Hempstead, Nassau County, New York (Figure 1). The site is currently known as "The Laundry Palace" and is operating as a Laundromat facility; no dry cleaning operations currently exist at the site. The site is surrounded by a mix of residential and commercial land to the north, south, and west, and by the village of Hempstead's Clinton Street well field and filtration plant to the east (Figure 2).

2.2 GEOLOGY AND HYDROGEOLOGY

A review of the geologic map of New York, Lower Hudson Sheet published by the University of the State of New York, the State Education Department, dated 1970, indicates this area is made up of coastal plain deposits which may be up to 2,000-ft thick. The site appears to be located on the Monmouth and Matawan groups within the Magothy formation, which consists of silty clay, glauconitic sandy clay, sand, and gravel units. Based on available data from the nearby Clinton Street well field, unconsolidated deposits underlying the site consist of sand and gravel mixtures to approximately 65 ft below ground surface (bgs), before clay units occur. Groundwater was encountered at NYSDEC Superfund sites within close proximity to the Love Cleaners site at approximately 25-30 ft bgs.

2.3 SITE HISTORY/PREVIOUS INVESTIGATIONS

According to information provided by the NYSDEC, the Love Cleaners site has historically operated as a dry cleaner facility, with known tetrachloroethene (PCE) contamination in the onsite soils. The site sits adjacent to the Clinton Street well field, where there are four active water supply wells within 550 ft of the site. The nearest wells to the site are Well 6R (125 ft), Well 8 (265 ft), Well 4 (400 ft), and Well 5 (550 ft).

Volatile organic compounds (VOCs) have impacted all of the wells at the Clinton Street well field, with several wells being abandoned or redrilled due to particularly high levels of PCE and trichloroethene (TCE). Water samples from Well 1R indicated PCE concentrations as high as 99 µg/L and TCE as high as 36 µg/L, as compared to their respective drinking water standards of 5.0 µg/L. VOC levels in Well 1R have exceeded applicable drinking water standards for 25 years. During the first quarter of 2007, samples collected from Well 5 revealed TCE concentrations of 10.1 µg/L. In addition, elevated levels of VOCs have been detected in Wells 4 and 8. Well treatment systems have been placed on the affected supply wells and the drinking water supplied to the distribution system meets all applicable standards.

The site is currently operating as a Laundromat under the name "The Laundry Palace". In 1997, while operating under the name of "Love Cleaners", an unpermitted floor drain was discovered and closed under Nassau County's Underground Injection Control protocol. Prior to closing, one

sample was taken from the drain and found to contain 21 µg/kg of PCE, 21,000 µg/kg of #2 fuel oil, and 42,000 µg/kg of lubricating oil. The detected levels are below current soil cleanup objectives.

Also in 1997, an on-site wastewater treatment machine was observed discharging a mist out of the north window of the facility. A sample of the mist was collected and found to contain 33,000 µg/L of PCE. In addition, a surface soil sample beneath the window was found to contain 0.78 mg/kg of PCE.

A Site Characterization investigation will be conducted at the Love Cleaners site to determine if PCE and/or its breakdown compounds are impacting soils, soil vapors, and groundwater at the site, and if any compounds are migrating into the Clinton Street well field.

3. SCOPE OF WORK

This section describes the data to be obtained during the field activities along with the number, types, and locations of samples. A Generic QAPP (EA, 2006)[1] was developed for field activities performed under the NYSDEC Standby Contracts D004438 and D004441. The field sampling protocols and quality assurance/quality control procedures are provided in the site specific QAPP Addendum (Appendix B). Daily field reports will be completed for each day of field activities. A copy of the daily field report form is provided in Appendix A.

3.1 ENVIRONMENTAL SAMPLING

The following soil vapor, subsurface soil, surface soil and groundwater characterization and sampling will be performed at the site:

- Geophysical survey
- Completion of six soil vapor sampling points using direct-push technologies
- Installation/sampling of two subslab soil vapor samples within the former dry cleaner structure.
- Collection of four surface soil samples around the building.
- Collection of two soil samples beneath the foundation at the subslab soil vapor sampling location.
- Completion of 10 soil borings using direct-push technologies.
- Collection of *in situ* groundwater samples at up to 14 locations using hydropunch technology with samplers to be installed using direct-push technology.

3.1.1 Geophysical Survey

A geophysical survey using ground penetrating radar, electromagnetic induction, or other geophysical techniques will be completed to locate utilities, drywells, piping, and other subsurface objects buried beneath the ground surface. This survey will be used to relocate proposed soil and groundwater sampling locations, if necessary.

1. EA Engineering, P.C. 2006. *Generic Quality Assurance Project Plan for Work Assignments under NYSDEC Contracts D004438 and D004441*. October.

3.1.2 Soil Vapor Monitoring Points

Six temporary soil vapor probes will be installed at locations surrounding the structure at the Love Cleaners site using Geoprobe® macro-cores to install stainless steel drive points to approximately 8 ft bgs (Figure 2). Soil boring spoils will be assumed to be non-hazardous waste and reworked into the surrounding ground surface unless a visible sheen or odor is evident, in which case the spoils will be drummed and disposed of in accordance with Section 4.

Once the sampling depth is reached, the 6-in. stainless steel sampling screen attached to a dedicated section of 0.25-in. diameter Teflon tubing that is identified as laboratory or food grade will be installed and used to collect the soil vapor samples. The borehole will then be backfilled with sand/glass beads to a minimum of 6 in. above the screened interval. Granular bentonite pellets will then be placed from approximately 6 in. above the screen to the ground surface hydrating concurrently with placement. Sufficient time will then be provided for the bentonite to set (24 hours minimum).

Upon completion of the sampling, the sample tubing will be removed and the temporary soil vapor probe location will be backfilled with bentonite and marked with a stake/flag that will be labeled with the proper sample identification and illustrated on the site map so it can be located using a high-precision global positioning system (GPS) unit. Borings performed in paved or concrete areas will be backfilled and completed at the ground surface with concrete or cold patch.

Soil implants or probes will be constructed/sampled in the same manner at all sampling locations to minimize possible discrepancies. The following procedures will be followed when implementing soil vapor sampling techniques:

- Implants will be installed using direct-push (Geoprobe®) technology.
- Porous backfill material (e.g., glass beads or coarse sand) will be used to create a sampling zone from 1 to 2 ft deep.
- Implants will be fitted with inert tubing (e.g. Teflon-type®) of the appropriate size (typically from 0.125-in. to 0.25-in. diameter) and of laboratory- or food-grade quality to the surface.
- Soil vapor probes will be sealed above the sampling zone with granular bentonite slurry within a minimum distance of 3 ft to prevent outdoor air infiltration, and the remainder of the borehole will be backfilled with clean material.

The following procedures will be strictly adhered to when sampling soil vapor:

- At least 24 hours after the installation of permanent probes, and shortly after the installation of temporary probes, 2-3 implant volumes (i.e., the volume of the sample

probe and tube) will be purged prior to collecting the samples to ensure that representative samples are collected.

- Flow rates for both purging and collecting will not exceed 0.2 liters per minute, to minimize outdoor air infiltration during sampling.

- Place a Summa canister on the ground surface adjacent to the sample tube. The canister will be a 6-L canister (provided by an independent laboratory) with a vacuum gauge and flow controller. The canister will be certified clean in accordance with U.S. Environmental Protection Agency (USEPA) Method TO-15 and under a vacuum pressure of no more than -30 in. of mercury in Hg. Flow controllers will be set for a 2-hour collection period.

- Record the serial number of the canister and associated regulator on the chain-of-custody form and field notebook/sample form. Assign sample identification on the canister identification tag and record this on chain-of-custody and field notebook/sample form.

- Record the gauge pressure; the vacuum gauge pressure must read -30 in Hg or less, or the canister cannot be used.

- Record the start time on the chain-of-custody form and in the field notebook/sample form, and take a digital photograph of canister setup and the surrounding area.

- During the sampling event, canisters and flow controller gauges will be monitored periodically to ensure a proper sample flow rate. In the event that a malfunction in sampling equipment is observed, the NYSDEC Project Manager shall be notified and appropriate action to ensure adequate samples (i.e., changing canisters and restarting sampling) shall be taken.

- At the termination of sampling**,** the canister valve will be closed and the stop time will be recorded on the chain-of-custody form and in the field notebook/sample form.

- Record the final gauge pressure and disconnect the sample tubing and the pressure gauge/flow controller from the canister, if applicable.

- Install the plug on the canister inlet fitting and place the sample container in the original box.

- Complete the sample collection log with the appropriate information, and log each sample on the chain-of-custody form.

- Remove the temporary soil vapor sample tube and properly seal the boring with hydrated bentonite chips.

- Sample size depends on the volume required to achieve minimum reporting limit requirements.

- A tracer gas (e.g., helium, butane, or sulfur hexafluoride) will be used at each location before collecting soil vapor samples to verify that infiltration of outdoor air is not occurring.

When soil vapor samples are collected, the following actions will be taken to document local conditions during sampling that may influence interpretation of the results:

- Sample location including the site, area streets, neighboring commercial or industrial facilities (with estimated distance to the site); outdoor ambient air sample locations (if applicable); and compass orientation (north) will be noted.

- Weather conditions (e.g., precipitation, outdoor temperature, barometric pressure, wind speed, and direction) will be noted for the preceding 24-48 hours.

- Any pertinent observations will be recorded, such as odors and readings from field instruments.

The field sampling team will maintain a sample log sheet, provided in Appendix A, summarizing the following:

- Sample identification
- Date and time of sample collection
- Sampling depth
- Identity of samplers
- Sampling methods and devices
- Purge volumes
- Volume of soil vapor extracted
- Canister and associated regulator identification will be recorded
- The vacuum before and after sample collection
- Apparent moisture content (dry, moist, saturated, etc.) of the sampling zone
- Chain-of-custody protocols and records used to track samples.

3.1.3 Subslab Vapor Sampling

Subslab vapor samples will be collected from locations determined by EA and in consultation with the NYSDEC representative. Two subslab soil vapor samples will be collected, one from beneath the foundation near a #2 fuel oil tank and one near the area of suspected dry cleaning operations within the former Love Cleaners structure. A hammer drill will be used to expose the subslab environment. During subslab vapor point installation, soil samples will also be collected from native soils located beneath the structure foundation as detailed in Section 3.1.6.

The following procedures will be followed when implementing subslab sampling techniques:

- Visually assess the condition of the floor. Select an area for sampling that is out of the line of traffic and away from major cracks and other floor penetrations (sumps, pipes, etc.).

- Drill a ⅜-in. diameter hole completely through the concrete floor slab using an electric hammer drill.

- Sweep concrete dust away from the drill hole and wipe the floor with a dampened towel. Concrete dust can be cleaned up with a vacuum equipped with a high efficiency particulate air filter only after the sample tubing is properly sealed and sample collection has begun.

- Insert the Teflon-lined polyethylene tubing (⅛-in. inside diameter by ¼-in. outside diameter, approximately 3 ft long) into the hole drilled in the floor, extending no further than 2 in. below the bottom of the floor slab.

- Pour melted beeswax around the tubing at the floor penetration, packing it in tightly around the tubing.

- Attach a syringe to the sample tube and purge approximately 100 ml of air/vapor at a rate not to exceed 0.2 L per minute. The syringe will be capped and the air released outside the building as to not interfere with the sample collection.

- Collect the purged air and screen with a photoionization detector (PID). Document the subslab soil vapor PID reading.

- Place a Summa canister on the floor adjacent to the sample tube. The canister will be a 6-L canister (provided by an independent laboratory) with a vacuum gauge and flow controller. The canister will be certified clean in accordance with USEPA Method TO-15 and under a vacuum pressure of no more than -30 in. of mercury in Hg. Flow controllers will be set for a 24-hour collection period.

- Record the serial number of the canister and associated regulator on the chain-of-custody form and field notebook/sample form. Assign sample identification on the canister identification tag and record this on chain-of-custody and field notebook/sample form.

- Record the gauge pressure; the vacuum gauge pressure must read -30 in Hg or less, or the canister cannot be used.

- Record the start time on the chain-of-custody form and in the field notebook/sample form, and take a digital photograph of canister setup and the surrounding area.

- During the sampling event, canisters and flow controller gauges will be monitored periodically to ensure a proper sample flow rate. In the event that a malfunction in sampling equipment is observed, the NYSDEC Project Manager shall be notified and appropriate action to ensure adequate samples (i.e., changing canisters and restarting sampling) shall be taken.

- At the termination of sampling**,** the canister valve will be closed and the stop time will be recorded on the chain-of-custody form and in the field notebook/sample form.

- Record the final gauge pressure and disconnect the sample tubing and the pressure gauge/flow controller from the canister, if applicable.

- Install the plug on the canister inlet fitting and place the sample container in the original box.

- Complete the sample collection log with the appropriate information, and log each sample on the chain-of-custody form.

- Remove the temporary subsurface probe and properly seal the hole in the slab with hydraulic cement.

3.1.4 Laboratory Analysis of Air/Vapor Samples

Air/vapor samples will be analyzed by Con-Test Analytical, an Environmental Laboratory Analytical Program-certified laboratory for VOCs using USEPA Method TO-15. In accordance with the New York State Department of Health (NYSDOH) *Guidance for Evaluating Soil Vapor Intrusion in the State of New York*, the analysis for all samples will achieve detection limits of 1 $\mu g/m^3$ for each compound except for TCE, vinyl chloride, and carbon tetrachloride, which will have a detection limit of 0.25 $\mu g/m^3$. Analytical results will be provided as an electronic data deliverable.

Field quality control samples will include duplicate sample collection. Field duplicates will be collected at the rate of 1 duplicate per 10 original samples (10 percent). Field duplicates will be collected by installing an in-line stainless steel "tee," which splits the flow coming from the sample tubing penetrating the floor to the two canisters set up adjacent to each other and each collecting vapors at identical flow rates.

3.1.5 Soil Sampling

Up to 10 soil borings will be installed to the groundwater table utilizing direct-push technologies at locations surrounding the former Love Cleaners site (Figure 2). Total depths of the boreholes are anticipated to be approximately 25-30 ft bgs. Soil samples will be collected continuously from the surface to the total depth of the boreholes macrocore samplers. Soil samples will be

characterized according to the Unified Soil Classification System. Soil boring logs will be generated at each location.

Up to four surface soil samples will be collected from areas along the perimeter of the on-site structure, with a focus on areas of suspected chemical storage, rainwater downspouts, and windows where known contaminants were emitted. Surface soil samples will be classified and logged according to the Unified Soil Classification System.

Up to two sub-slab soil samples will be collected from areas beneath the foundation of the on-site structure, in conjunction with the sub-slab soil vapor sampling described in Section 3.1.3

3.1.5.1 Subsurface Soil Sampling Procedures

A PID with a 10.6 eV lamp will be used to screen soil samples from each interval. Samples will be collected from the samplers using clean nitrile gloves and placed in sealed plastic bags labeled with boring number, sampling interval, and recovery data and allowed to equilibrate before PID measurements are collected. If organic compounds are detected by the PID, then one soil sample will be collected from the interval with the highest PID measurement and sent for laboratory analysis. If VOCs are not detected in samples, soil samples will be collected from the soil-groundwater interface.

3.1.5.2 Surface Soil Sampling Procedures

Surface soil samples will be collected utilizing a stainless steel spoon. Samples will be composited within a stainless steel bowl in order to produce a homogenized mixture, which will then be jarred and submitted for analysis as described in Section 3.1.5.4.

3.1.5.3 Subslab Soil Sampling

Concurrent with subslab soil vapor sampling, grab samples will be collected from the subsurface environment beneath the foundation of the on-site structure. Soils will be exposed by drilling through the building foundation with a hammer drill, and samples will be collected utilizing a stainless steel spoon. Samples will then be jarred and submitted for analysis as described in Section 3.1.5.4.

3.1.5.4 Soil Analysis

Soil samples selected for analysis will be transferred from sealed plastic bags to properly labeled laboratory containers using clean nitrile gloves. Soil sample containers will be placed in ice filled coolers prepared for shipment. Samples will be shipped to the analytical laboratories within 24 hours. The samples will be labeled, handled, and packaged following the procedures described in Generic QAPP and QAPP Addendum. Quality assurance/quality control samples will be collected at the frequency detailed in the Generic QAPP and QAPP Addendum. Soil

cuttings generated during subsurface soil sampling will be drummed and disposed of as detailed in Section 4.

All samples will be analyzed for VOCs, semivolatile organic compounds (SVOCs), pesticides/polychlorinated biphenyls (PCBs), and target analyte list (TAL) metals by USEPA Methods 8260B, 8270C, 8081/8082, and 6010/7470, respectively. All soil samples will be collected and analyzed in accordance with NYSDEC Analytical Services Protocol. Mitkem Laboratories of Warwick, Rhode Island will complete the analysis of samples collected on-site. A field record of each sampling location, classification, PID readings, and other field observations will be recorded on the soil sampling log form provided in Appendix A.

3.1.6 *In situ* Groundwater Sampling

Following completion of soil borings, direct-push technologies will be utilized to install hydropunch samplers for the purposes of *in situ* groundwater sample collection. Samplers will be installed at up to 14 locations, including 10 locations on-site surrounding the former Love Cleaners structure and three locations within the village of Hempstead Clinton Street well field. The hydropunch sampler will be installed to the top of the groundwater table, estimated to be approximately 30 ft bgs, and retracted to expose a screen from which the sample will be collected. Following completion of groundwater sampling, the rods and screen will be removed from the ground, decontaminated, and reinstalled to 10 ft below the previous sample collection. This process will be repeated at 10-ft intervals to a depth of 100 ft bgs, or until equipment refusal is encountered.

3.1.6.1 Groundwater Sampling Procedures

The following procedures will be used for *in situ* groundwater sampling:

- Wear appropriate personal protective equipment as specified in the HASP and the HASP Addendum. In addition, samplers will use new sampling gloves for the collection of each sample.

- Obtain PID readings (MiniRAE or similar) to monitor vapor concentrations during purging and sampling as required by the HASP and record them in the field logbook.

- Obtain sample from sample location with a Teflon bailer suspended on new, clean nylon twine. The sampling will be performed with a new bailer dedicated to sample interval. Collect the sample aliquot for VOC analysis by lowering and raising the bailer slowly to avoid agitation and degassing, and then carefully pour directly into the appropriate sample bottles.

- Sample bottles containing appropriate preservative for the parameter to be analyzed will be obtained from the laboratory.

- Place analytical samples in cooler and chill to 4°C. Samples will be shipped to the analytical laboratories within 24 hours.

- Fill out field logbook, sample log sheet, labels, custody seals, and chain-of-custody forms.

Groundwater samples will be placed in appropriate sample containers, sealed, and submitted to the laboratory for analysis. The samples will be labeled, handled, and packaged following the procedures described in Generic QAPP and QAPP Addendum.

3.1.6.2 Groundwater Analysis

Groundwater samples from the first interval (30-40 ft bgs), at five locations to be selected in conjunction with the NYSDEC Project Manager, will be analyzed for VOCs, SVOCs, pesticides/PCBs, and TAL metals by USEPA Methods 8260B, 8270C, 8081/8082, and 6010/7470, respectively. Samples collected from remaining locations and intervals (to 100 ft bgs) will be analyzed for VOCs only by USEPA Method 8260B. All groundwater samples will be collected and analyzed in accordance with NYSDEC Analytical Services Protocol. Mitkem Corporation of Warwick, Rhode Island will complete the analysis of samples collected on-site. Quality assurance/quality control samples will be collected at the frequency detailed in the Generic QAPP and QAPP Addendum.

3.2 DECONTAMINATION PROCEDURES

All non-dedicated equipment and tools used to collect samples for chemical analysis will be decontaminated prior to and between each sample interval using an Alconox rinse and potable water rinse. Additional cleaning of the equipment with steam may be required under some circumstances. Decontamination fluids will be collected and stored in an appropriate container and disposed of properly. Contaminated materials will be disposed of daily by a regulated hauler.

3.3 STORAGE AND DISPOSAL OF WASTE

EA is responsible for the proper storage, handling, and disposal of investigative derived waste, including personal protective equipment, and solids and liquids generated during the soil boring installation activities. All drummed materials will be clearly labeled with their contents and origin. All investigative derived waste will be managed in accordance with NYSDEC Division of Environmental Remediation *Draft DER-10 Technical Guidance for Site Investigation and Remediation*, December 2002.

Accordingly, handling and disposal will be as follows:

- Liquids generated from contaminated equipment or a decontamination activity that exhibit visual staining, sheen, or discernable odors will be collected in drums or other

containers at the point of generation. They will be stored in a temporary staging area. A regulated waste subcontractor will then remove the generated waste stream and dispose of them at an off-site location.

- Liquid generated during existing and temporary well sampling or a decontamination activity will be collected in drums or other containers at the point of generation. Drums will be moved to a central location for pick up as arranged by EA.

- Soil and rock spoils from drilling operations that exhibit visible staining, sheen, or discernable odors will be containerized in drums and placed in a central location to be picked up by the waste hauler.

- Used protective clothing and equipment that is suspected to be contaminated with hazardous waste will be placed in plastic bags, packed in 55-gal ring-top drums, and transported to the drum staging area to be picked up by the waste hauler.

- Non-contaminated trash and debris will be placed in a trash dumpster and disposed of by a local garbage hauler.

- Non-contaminated protective clothing will be packed in plastic bags and placed in a trash dumpster for disposal by a local garbage hauler.

3.4 LABORATORY REPORTING AND DATA VALIDATION

It is anticipated that preliminary analytical results will be available within 2 weeks of receipt at the laboratory, and final results will be provided within the standard turnaround time (i.e., 30 days). All samples collected will be validated by a third party independent of the laboratory that performed the analyses and the consultant that performed the field work. A usability analysis will be conducted by a qualified data validator and a Data Usability Summary Report will be submitted to NYSDEC.

The collection and reporting of reliable data is a primary focus of the sampling and analytical activities. Laboratory and field data will be reviewed to determine the limitations, if any, of the data and to assure that the procedures are effective and that the data generated provide sufficient information to achieve the project objectives. A qualified independent third party will evaluate the analytical data according to NYSDEC Department of Environmental Remediation Data Usability Summary Report guidelines.

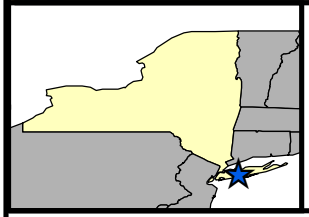
3.5 SITE PLAN DEVELOPMENT

Following completion of field activities, EA will develop a site plan utilizing recent aerial photography depicting general site features within the vicinity of the site. The locations of all samples points will be surveyed using a GPS device, with sample names and locations identified

and mapped on a site plan. The horizontal positions will be tied in to the North American Datum 1983 and Universal Transverse Mercator Zone 18N coordinate system.

3.6 SITE CHARACTERIZATION REPORT

Upon completion of the field activities, a Site Characterization Report will be prepared and submitted to NYSDEC in accordance with Section 3.13 of DER-10. The report will include a summary of field and laboratory analytical data, site maps showing sampling locations, and a discussion of the findings.



Legend

★ Site Location

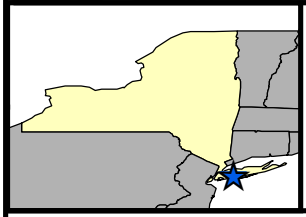
0 0.2 0.4 0.8 1.2 1.6 Miles

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION WORK PLAN
HEMPSTEAD, NEW YORK

FIGURE 1
Site Location Map

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JM	CJS	DCC	JM	AS SHOWN	SEPTEMBER 2008	14368.34	GIS/PROJECTS/ FIGURE1.MXD



Legend

- Proposed Soil/Groundwater Sample Location
- Proposed Groundwater Sample Location
- Proposed Soil Vapor Point Location
- Proposed Sub-Slab Vapor Point
- Proposed Surface Soil Sample Location

0 25 50 100 Feet

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION WORK PLAN
HEMPSTEAD, NEW YORK

FIGURE 2
Proposed Sampling Locations

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JAM	DCC	DCC	JAM	AS SHOWN	SEPTEMBER 2008	14368.34	GIS/PROJECTS/ FIGURE2.MXD

Appendix A

Field Forms

FIELD BORING LOG FORM

EA Engineering, P.C.
EA Science and Technology

LOG OF SOIL BORING

Coordinates:
Surface Elevation:
Casing Below Surface:
Reference Elevation:
Reference Description:

Job. No.	Client: New York State Department of Environmental Conservation	Location:
Drilling Method:		Soil Boring Number:
Sampling Method:		Sheet 1 of
		Drilling Start / Finish

Water Lev.								
Time								

Blow Counts (140-lb)	Feet Drvn/Ft. Recvrd	Well Diagram	PID (ppm) HNu	Depth in Feet		USCS Log	Surface Conditions: Weather: Temperature:
				0			
				1			
				2			
				3			
				4			
				5			
				6			
				7			
				8			
				9			
				10			
				11			
				12			
				13			
				14			
				15			
				16			
				17			
				18			
				19			
				20			

Logged by: _____ Date: _____

Drilling Contractor: _____ Driller: _____

FIELD AIR SAMPLING FORM

EA Engineering and Its Affiliate EA Science & Technology 6712 Brooklawn Parkway, Suite 104 Syracuse, NY 13211	Project #: 14368.19 Project Name: NYSDEC - Axiohm OU2 Offsite Location: Ithaca, New York Project Manager: Karen Cahill/Bob Casey

Sample Location Information:

Site ID Number:				Sampler(s):	DC/MS
PID Meter Used: (Model, Serial #)				Building I.D. No.:	

SUMMA Canister Record:

INDOOR AIR - FIRST FLOOR		INDOOR AIR - BASEMENT		SUBSLAB SOIL GAS		OUTDOOR AIR	
Flow Regulator No.:		Flow Regulator No.:		Flow Regulator No.:		Flow Regulator No.:	
Canister Serial No.:		Canister Serial No.:		Canister Serial No.:		Canister Serial No.:	
Start Date/Time:		Start Date/Time:		Start Date/Time:		Start Date/Time:	
Start Pressure: (inches Hg)		Start Pressure: (inches Hg)		Start Pressure: (inches Hg)		Start Pressure: (inches Hg)	
Stop Date/Time:		Stop Date/Time:		Stop Date/Time:		Stop Date/Time:	
Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)	
Sample ID:		Sample ID:		Sample ID:		Sample ID:	

Other Sampling Information:

Story/Level		Story/Level		Basement or Crawl Space?		Direction from Building	
Room		Room		Floor Slab Thickness (inches) *[if present]*		Distance from Building	
Indoor Air Temp (^{o}F)		Indoor Air Temp		Potential Vapor Entry Points Observed?		Intake Height Above Ground Level (ft.)	
Barometric Pressure?		Barometric Pressure?		Ground Surface Condition (Crawl Space Only)		Intake Tubing Used?	
Intake Height Above Floor Level (ft.)		Intake Height Above Floor Level (ft.)		If slab, intake Depth If Crawl Space, intake height		Distance to nearest Roadway	
Noticeable Odor?		Noticeable Odor?		Noticeable Odor?		Noticeable Odor?	
PID Reading (ppb)		PID Reading (ppb)		PID Reading (ppb)		PID Reading (ppb)	
Duplicate Sample?		Duplicate Sample?		Duplicate Sample?		Duplicate Sample?	

Comments:

Sampler Signature:

EA Engineering PC and its Affliate,
EA Science and Technology

GROUNDWATER SAMPLING
PURGE FORM

Well I.D.:	**EA Personnel:**	**Client:** NYSDEC
Location:	**Well Condition:**	**Weather:**
Sounding Method:	**Gauge Date:**	**Measurement Ref:** top of casing
Stick Up/Down (ft):	**Gauge Time:**	**Well Diameter (in):**

Purge Date: 29-Aug-07	**Purge Time:**
Purge Method:	**Field Technician:**

Well Volume

A. Well Depth (ft):	**D. Well Volume (ft):**	**Depth/Height of Top of PVC:**
B. Depth to Water (ft):	**E. Well Volume (gal) C*D):**	**Pump Type:**
C. Liquid Depth (ft) (A-B):	**F. Five Well Volumes (gal) (E3):**	**Pump Designation:**

Water Quality Parameters

Time (hrs)	DTW (ft btoc)	Volume (liters)	Rate (Lpm)	pH (pH units)	ORP (mV)	Temperature (oC)	Conductivity (uS/cm)	DO (ug/L)	Turbidity (ntu)

Total Quantity of Water Removed (gal): _____ **Sampling Time:** _____
Samplers: _____ **Split Sample With:** _____
Sampling Date: _____ **Sample Type:** _____

COMMENTS AND OBSERVATIONS: _____

DAILY OBSERVATION REPORT **Day: MONDAY** **Date: 4-21-08**

NYSDEC

Temperature: (F) 70 (am) 75 (pm)

Wind Direction: W (am) w (pm)

Weather: (am) sunny
(pm) sunny

Project Name
CAMAROTA CLEANERS SITE
NYSDEC Site # 5-46-044

Contract # D-004438-22

Mechanicvill, New York

Arrive at site 945 (am)

Leave site: 1700 (pm)

HEALTH & SAFETY:

Are there any changes to the Health & Safety Plan? Yes ( ) No (x)
(If yes, list the deviation under items for concern)

Are monitoring results at acceptable levels?

Soil	Yes (x)	n/a ( )	* No ( )
Waters	Yes (x)	n/a ( )	* No ( )
Air	Yes ( )	n/a (x)	* No ( )

- *If No, provide comments*

OTHER ITEMS:

Site Sketch Attached: Yes ( ) No (x)
Photos Taken: Yes ( ) No (x)

DESCRIPTION OF DAILY WORK PERFORMED:
9 groundwater monitoring wells gauged upon arrival, then sampled using low flow technique throughout the day. All samples collected for 8260B VOCs and submitted to Mitkem Corp at end of day, packed on ice, through UPS.

PROJECT TOTALS:

SAMPLING (Soil/Water/Air)

Contractor Sample ID:	DEC Sample ID:	Description:

DAILY OBSERVATION REPORT Day: MONDAY Date: 4-21-08

CONTRACTOR/SUBCONTRACTOR EQUIPMENT AND PERSONNEL ON SITE:

(Name of contractor) personnel: David Crandall/Megan Scott/Kris Charney

(Name of Subcontractor) personnel:

(Name of contractor) equipment:

(*Indicates active equipment)

Other Subcontractors:

VISITORS TO SITE:

1.

PROJECT SCHEDULE ISSUES:

PROJECT BUDGET ISSUES:

None.

ITEMS OF CONCERN:

COMMENTS:

ATTACHMENT(S) TO THIS REPORT:

SITE REPRESENTATIVE:

Name: (*signature*)
cc:

DAILY PHOTOLOG

FIELD SOIL VAPOR SAMPLING FORM

EA Engineering and Its Affiliate EA Science & Technology 6712 Brooklawn Parkway, Suite 104 Syracuse, NY 13211	Project #: 14368 Project Name: NYSDEC - Location: Project Manager:

Sample Location Information:

Site ID Number:				Sampler(s):	
PID Meter Used (Model, Serial #) :				Soil Vapor I.D. No.:	

SUMMA Canister Record:

SOIL VAPOR POINT		DUPLICATE SAMPLE (IF COLLECTED)	
Flow Regulator No.:		Flow Regulator No.:	
Canister Serial No.:		Canister Serial No.:	
Start Date/Time:		Start Date/Time:	
Start Pressure: (inches Hg)		Start Pressure: (inches Hg)	
Stop Date/Time:		Stop Date/Time:	
Stop Pressure: (inches Hg)		Stop Pressure: (inches Hg)	
Sample ID:		Sample ID:	

Other Sampling Information:

Helium percentage achieved in enclosure for Tracer Gas Test:		Depth to sample point:	
Tracer Gas test result (% of Helium):		Nearest Groundwater Elevation:	
Noticeable Odor?		Additional info:	
Purge Volume PID Reading (ppb)			
Duplicate Sample?			
Outdoor Ambient Temperature:			
Wind Direction:			

Comments:

Sampler Signature:

Appendix B

Quality Assurance Project Plan Addendum

Quality Assurance Project Plan Addendum for a Site Characterization Love Cleaners Site (1-30-187) Hempstead, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
6712 Brooklawn Parkway, Suite 104
Syracuse, New York 13211
(315) 431-4610

October 2008
Revision: FINAL
EA Project No. 14368.34

Quality Assurance Project Plan Addendum
for a Site Characterization
Love Cleaners Site (1-30-187)
Hempstead, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C. and Its Affiliate
EA Science and Technology
6712 Brooklawn Parkway, Suite 104
Syracuse, New York 13211
(315) 431-4610

6 October 2008
Christopher J. Canonica, P.E., Program Manager — Date
EA Engineering, P.C.

6 October 2008
Jennifer Martin, P.G., Project Manager — Date
EA Science and Technology

October 2008
Revision: FINAL
Project No.: 14368.34

CONTENTS

LIST OF TABLES

1. PURPOSE AND OBJECTIVES

1.1 PURPOSE

A Generic Quality Assurance Project Plan (QAPP) (EA, 2006)[1] was developed for field activities performed under the New York State Department of Environmental Conservation (NYSDEC) Standby Contracts D004438 and D004441. This QAPP Addendum was prepared for the Work Plan associated with performance of the site characterization at the Love Cleaners site located in Hempstead, Nassau County, New York (NYSDEC Site No. 1-30-187). The principal purpose of this QAPP Addendum is to supplement the Generic QAPP with site-specific procedures for the collection, analysis, and evaluation of data that will be legally and scientifically defensible.

1.2 QUALITY ASSURANCE PROJECT PLAN OBJECTIVES

This QAPP Addendum provides site-specific information and standard operating procedures applicable to all work performed at the site that is not included in the Generic QAPP. The information includes definitions and generic goals for data quality and required types and quantities of quality assurance/quality control (QA/QC) samples. The procedures address sampling and decontamination protocols; field documentation; sample handling, custody, and shipping; instrument calibration and maintenance; auditing; data reduction, validation, and reporting; corrective action requirements; and QA reporting. The Work Plan contains a site description and information on site field activities, such as sample locations, sampling procedures, analytical methods, and reporting limits.

1. EA Engineering, P.C. 2006. *Generic Quality Assurance Project Plan for Work Assignments under NYSDEC Contracts D004438 and D004441*. October.

2. PROJECT ORGANIZATION AND RESPONSIBILITIES

While all personnel involved in an investigation and the generation of data are implicitly a part of the overall project management and QA/QC program, certain members of the Project Team have specifically designated responsibilities. Project personnel responsibilities are summarized below.

2.1 EA ENGINEERING, P.C. AND ITS AFFILIATE EA SCIENCE AND TECHNOLOGY

EA Engineering, P.C. and its affiliate EA Science and Technology (EA) will provide oversight, coordination, health and safety, field support, and evaluation of analytical data. Field support will be provided during subsurface soil sampling. EA also will be responsible for evaluation of analytical test results, which will be submitted to NYSDEC. The EA staff involved in this project is as follows:

- ***Scott Graham, EA Project QA/QC Officer—***The QA/QC Officer will provide guidance on technical matters and review technical documents relating to the project. He will assess the effectiveness of the QA/QC program and recommend modifications when applicable. Additionally, the QA/QC Officer may delegate technical guidance to specially trained individuals under his direction.

- ***Jennifer Martin, EA Project Manager***—The Project Manager provides overall coordination and preparation of the project within EA. This includes coordination with NYSDEC and New York State Department of Health, budget control, subcontractor performance, implementation of the QAPP, and allocation of resources and staffing to implement both the QA/QC program and the site Health and Safety Plan.

- ***Judy Graham, EA Project QA/QC Coordinator—***The Project QA/QC Coordinator is responsible for project-specific supervision and monitoring of the QA/QC program. This includes ensuring that field personnel are familiar with and adhere to proper sampling procedures, field measurement techniques, sample identification, and chain-of-custody procedures. The Project QA/QC coordinator will coordinate with the analytical laboratory for the receipt of samples and reporting of analytical results, and will recommend actions to correct deficiencies in the analytical protocol or sampling. Additionally, QA/QC reports will be prepared for management review.

- ***David Crandall, EA Site Manager***—The Site Manager will serve as the on-site contact person for field investigations and tests. He will be responsible for coordinating the field activities including inspecting and replacing equipment, preparing daily and interim reports, scheduling sampling, and coordinating shipment and receipt of samples and containers.

The Program Health and Safety Officer is also an integral part of the project implementation team.

- ***Peter Garger, EA Program Health and Safety Officer***—The Program Health and Safety Officer will be responsible for the development, final technical review, and approval of the Health and Safety Plan. In addition, he will provide authorization, if warranted, to modify personal protective equipment requirements based on field conditions. He will also provide final review of all health and safety monitoring records and personal protective equipment changes to ensure compliance with the provisions of the Health and Safety Plan.

2.2 LABORATORY

Laboratory analyses for this project will be performed by Mitkem Corporation, of Warwick, Rhode Island, and Con-Test Analytical Lab, of East Longmeadow, Massachusetts, respectively, under subcontract agreements with EA. Environmental Data Services, Inc. will have sample analysis and review responsibilities on this project. The laboratories will have their own provisions for conducting an internal QA/QC review of the data before they are released to EA. The laboratories' contract supervisors will contact EA's Project Manager with any sample discrepancies or data concerns.

Hardcopy and electronic data deliverable formatted QA/QC reports will be filed by the analytical laboratories when data are submitted to EA. Corrective actions will be reported to the EA Project Manager along with the QA/QC report (Section 9 of the Generic QAPP). The laboratories may be contacted directly by EA or NYSDEC personnel to discuss QA concerns. EA will act as laboratory coordinator on this project, and all correspondence from the laboratories will be coordinated with EA's Project Manager.

3. SAMPLING RATIONALE, DESIGNATION, AND CONTAINERS

3.1 SAMPLING RATIONALE

The sampling rationale presented for each planned field activity is detailed in the Work Plan for a Site Characterization (EA, 2008)[2]. The rationale and frequency of the QC samples collected is discussed in the Generic QAPP. The remedial investigation laboratory program, illustrated in Table 1, includes the number of samples for each sample location, as well as QA/QC samples. The frequency of QA/QC samples are expressed as a percentage of the total number of samples collected for that matrix. The Generic QAPP also includes analytical methods and reporting limits.

3.2 SAMPLE DESIGNATION

Field samples collected from the site will be assigned a unique sample tracking number. Sample designation will be an alpha-numeric code, which will identify each sample by the site identification, matrix sampled, location number, sequential sample number (or depth of top-of-sample interval for excavation soil samples), and date of collection. Each sampling location will be identified with a two-digit number. Sequential sample numbers at each location for samples will begin with 01 and increase accordingly. For groundwater samples, the top depth of the sample interval will be used as the sample number.

The following terminology will be used for the sample identification:

- **Groundwater Samples**

  — SITE ID-GW-XX-Depth (for *in-situ* groundwater samples)

- **Soil Samples**

  — SITE ID-B-01 through 10 (for boring samples)
  — SITE ID-SF-01 through 04 (for surface soil samples)
  — SITE ID-SU-01 through 02 (for subslab soil samples)

- **Soil Vapor Samples**

  — SITE ID-SS-01 through 2 (for subslab soil vapor samples)
  — SITE ID-SV-01 through 06 (for soil vapor samples)

2. EA Engineering, P.C. 2008. Work Plan for a Site Characterization Love Cleaners Site (Site No.1-30-187), New York. August.

3.3 SAMPLE CONTAINERS

Table 2 outlines the types of sample containers and preservatives required for sample collection. Please note that liquid waste samples, which exhibit an oily characteristic, do not require acid preservation.

3.4 DATA QUALITY CONTROL OBJECTIVES

Data Quality Control Objectives (DQOs) are qualitative and quantitative statements, which specify the quality of data required to support decisions. DQOs are developed to achieve the level of data quality required for anticipated data use. DQOs are implemented so that, for each task, the data are legally and scientifically defensible. The development of DQOs for a specific site and measurement takes into account project needs; data uses, types, and needs; and data collection. These factors determine whether the quality and quantity of data are adequate for their end use. Sampling protocols have been developed and sampling documentation and handling procedures have been identified to realize the required data quality.

DQOs are established prior to data collection and are not considered a separate deliverable. Rather, the DQO development process is integrated with the project planning process, and the results are incorporated into the QAPP for the site location. DQOs will be specified for each planned data collection activity. The DQO process results in an effective plan, which details the chosen sampling and analysis options, and the statements of confidence in decisions made during the corrective action process. Confidence statements are possible through the application of statistical techniques to the data.

3.5 FIELD INVESTIGATION DATA QUALITY OBJECTIVES

In order to permit calculation of precision and accuracy for the sampling media, blind field duplicate samples will be collected, analyzed, and evaluated.

Through the submission of field QC samples, the distinction can be made between laboratory problems, sampling technique considerations, sample matrix effects, and laboratory artifacts. To assure media sample quality, all sample collection will be performed in strict accordance with procedures set forth in this QAPP.

Precision will be calculated as relative percent difference if there are only two analytical points, and percent relative standard deviation if there are more than two analytical points. Blind field duplicate sample analyses will provide the means to assess precision.

Quality will be assured through the implementation of the structured and coherent QAPP, defining characterization and pre-sampling location inventory. This QAPP has been designed so that the appropriate numbers of samples for each location of interest are obtained for analysis. While 100 percent quality is the goal, it must be recognized that unforeseen events may result in the generation of some data that may not be acceptable for use.

Currently published analytical methods have been identified for the analysis of the collected samples, so that the data generated remain comparable to any previous or future generated data. EA will use an analytical laboratory with a demonstrated proficiency in the analysis of similar samples using the referenced methods. In addition, samples will be collected using documented procedures to ensure consistency of effort and reproducibility, if necessary.

3.6 LABORATORY DATA QUALITY OBJECTIVES

The analytical laboratory will demonstrate analytical precision and accuracy by the analysis of various QC samples (i.e., laboratory duplicates, spike samples, matrix spike duplicates, and laboratory control samples). Precision, as well as instrument stability, also will be demonstrated by comparison of calibration response factors from the initial calibration to that of the continuing calibrations. Precision will be presented as relative percent difference, relative standard deviation, or percent difference, whichever is appropriate for the number and type of QC samples analyzed. Laboratory accuracy will be evaluated by the addition of surrogate and matrix spike compounds, and will be presented as percent recovery. Laboratory blanks also can be used to demonstrate the accuracy of the analyses and possible effects from laboratory artifact contamination.

4. ANALYTICAL LABORATORY

The data collected during this investigation will be forwarded to NYSDEC for review.

Groundwater and soil samples will be submitted to Mitkem Corporation in Warwick, Rhode Island, while soil vapor/air samples will be submitted to Con-Test Analytical Lab in East Longmeadow, Massachusetts. The laboratories are New York State Department of Health Environmental Laboratory Approval Program-certified, meeting specifications for documentation, data reduction, and reporting.

5. ANALYTICAL TEST PARAMETERS

This QAPP Addendum will require the analysis of soil and groundwater samples using U.S. Environmental Protection Agency (USEPA) Method 8260B for volatile organic compounds (VOCs), USEPA Method 8270C for semivolatile organic compounds (SVOCs), 8081/8082 for pesticides/polychlorinated biphenyls, and 6010/7470 for target analyte list metals. Soil vapor and air samples will be analyzed for VOCs by USEPA Method TO-15. Compound lists for each analytical method are included in the Generic QAPP.

6. ANALYTICAL DATA VALIDATION

The laboratory will review data prior to release from the facility. Objectives for review are in accordance with the QA/QC objectives stated in the Generic QAPP. The laboratories are required to evaluate their ability to meet these objectives. Outlying data will be flagged in accordance with laboratory standard operating procedures and corrective action will be taken to rectify the problem.

In order to ensure the validity of analytical data generated by a project, it will be validated by Environmental Data Resources, Inc., who is independent from the analysts and the project. The Generic QAPP addresses implementation of independent validation.

TABLE 1 SITE CHARACTERIZATION ANALYTICAL PROGRAM

Sample Matrix	Volatile Organic Compound USEPA Method 8260B	Semivolatile Organic Compound USEPA Method 8270C	TAL Metals USEPA Method 6010/7470	Pesticides/ PCBs USEPA Method 8081/8082
GROUNDWATER SAMPLING PROGRAM				
No. of Samples	112	5	5	5
Field Duplicate	6	1	1	1
Trip Blank (a)	6	---	---	---
Rinsate Blank (b)	12	5	5	5
MS/MSD	12	2	2	2
Total No. of Analyses	148	13	13	13
SOIL SAMPLING PROGRAM				
No. of Samples	16	16	16	16
Field Duplicate	1	1	1	1
Rinsate Blank (b)	1	1	1	1
MS/MSD	2	2	2	2
Total No. of Analyses	20	20	20	20
AIR/SOIL VAPOR SAMPLING PROGRAM				
	Volatile Organic Compound USEPA Method TO-15			
No. of Samples	8			
Field Duplicate	1			
Rinsate Blank (b)	---			
MS/MSD	---			
Total No. of Analyses	9			

[(a)]Trip Blanks are required for volatile organic compound sampling of aqueous media at a rate of one per sample shipment.
[(b)]One rinsate blank per day of sampling with a field device that requires field documentation.

NOTE: TAL = Target analyte list.
USEPA = U.S. Environmental Protection Agency.
PCB = Polychlorinated Biphenyls
MS/MSD = Matrix spike/matrix spike duplicate.
Laboratory quality control samples will be collected at a rate of 1 per 20 samples, per matrix.

TABLE 2 - SAMPLE CONTAINERS, PRESERVATION, AND HOLDING TIMES

Parameter	Matrix	Container Type/Size	Sample Volume	Preservation	Maximum Holding Time from Verifiable Time of Sample Receipt
Target Compound List volatile organic compounds	Soil	One 2-oz wide-mouth glass jar with Teflon-lined cap	5 g	Minimize headspace, cool 4°C	7 days
	Water	Two 40-mL glass vials with Teflon-lined Septa	80 mL	No headspace, cool 4°C HCl	7 days
Target Compound List semi-volatile organic compounds	Soil	One 4-oz wide-mouth glass jar with Teflon-lined cap	30 g	Cool 4°C	Extraction within 14 days, analysis within 40 days
	Water	One 1-L amber glass with Teflon-lined Septa	1 L	Cool 4°C	14 days
Pesticides and Polychlorinated Biphenyls	Soil	One 4-oz wide-mouth glass jar with Teflon-lined cap	30 g	Cool 4°C	Extraction within 14 days, analysis within 40 days 40 days
	Water	One 1-L amber glass with Teflon-lined Septa	1 L	Cool 4°C	Extraction within 7 days, analysis within 40 days 40
Target Analyte List metals	Soil	One 4-oz wide-mouth glass jar with Teflon-lined cap	10 g	Cool 4°C	180 days
	Water	One 500-mL plastic with Teflon lined cap	500 mL	Cool 4°C HNO_3	6 months
TO-15	Air	One 6-L Summa® Canister	6 L	None	14 days

Appendix C

Health and Safety Plan Addendum

Health and Safety Plan Addendum
For a Site Characterization Work Plan
Love Cleaners Site (1-30-187)
Hempstead, Nassau County, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C., and Its Affiliate
EA Science and Technology
6712 Brooklawn Parkway, Suite 104
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(315) 431-4610

October 2008
Revision: FINAL
EA Project No. 14368.34

Health and Safety Plan Addendum
For a Site Characterization Work Plan
Love Cleaners Site (1-30-187)
Hempstead, Nassau County, New York

Prepared for

New York State Department of Environmental Conservation
625 Broadway
Albany, New York 12233

Prepared by

EA Engineering, P.C. and Its Affiliate
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6 October 2008
Christopher J. Canonica, P.E., Program Manager — Date
EA Engineering, P.C.

6 October 2008
Jennifer Martin, P.G., Project Manager — Date
EA Science and Technology

October 2008
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CONTENTS

LIST OF FIGURES

1. INTRODUCTION

1.1 GENERAL

A Generic Health and Safety Plan (HASP) (EA, 2006)[1] was developed for field activities performed under the New York State Department of Environmental Conservation (NYSDEC) Standby Contracts D004438 and D004441. This HASP Addendum is to supplement the Generic HASP with site-specific information to protect the health and safety of personnel while performing field activities to complete the Work Assignment for the Love Cleaners site (NYSDEC Site No 1-40-187) Hempstead, Nassau County, New York (Figure 1).

This HASP Addendum describes the safety organization, procedures, and protective equipment that have been established based on an analysis of potential physical, chemical, and biological hazards. Specific hazard control methodologies have been evaluated and selected to minimize the potential for accidents or injuries to occur. One copy of the Generic HASP and this HASP Addendum will be maintained for use during the scheduled field sampling effort. The copies will be made available for site use and employee review at all times.

This HASP Addendum addresses regulations and guidance practices set forth in the Occupational Safety and Health Administration (OSHA) Standards for Construction Industry, 29 Code of Federal Regulations (CFR) 1926, including 29 CFR 1926.65, *Hazardous Waste Operations and Emergency Response* and 29 CFR 1926.59, *Hazardous Communications*.

The following are provided as attachments:

- Attachment A: Worker Training and Physical Examination Record
- Attachment B: Health and Safety Plan Review Record
- Attachment C: Site Entry and Exit Log
- Attachment D: Accident Investigation Report
- Attachment E: Emergency Telephone Numbers and Hospital Directions
- Attachment F: Emergency Equipment Available Onsite
- Attachment G: Map to Hospital
- Attachment H: Personal Protective Equipment Activity Record

NOTE: This site-specific HASP Addendum should be left open to display Attachment E (Emergency Telephone Numbers and Hospital Directions) and made available to all site personnel in a conspicuous location for the duration of field activities in the event of an emergency.

1. EA Engineering, P.C. 2006. *Generic Health and Safety Plan for Work Assignments under NYSDEC Contracts D004438 and D004441*. June.

1.2 SITE LOCATION

The Love Cleaners site is a commercial property located on Clinton Street in Hempstead, Nassau County, New York. The property is currently utilized as a Laundromat operating under the name "The Laundry Palace". The site is surrounded by commercial properties to the north, south, and west, and is bounded to the east by the village of Hempstead Clinton Street well field.

1.3 POLICY STATEMENT

EA will take every reasonable step to provide a safe and healthy work environment and to eliminate or control hazards in order to minimize the possibility of injuries, illnesses, or accidents to site personnel. EA and EA subcontractor employees will be familiar with the Generic HASP and this HASP Addendum for each of the project activities they perform. Prior to entering the site, the Generic HASP and this HASP Addendum will be reviewed and an agreement to comply with the requirements will be signed by EA personnel, subcontractors, and visitors (Attachment B).

Operational changes that could affect the health and safety of the site personnel, community, or environment will not be made without approval from EA's Project Manager and Program Health and Safety Officer. This document will be periodically reviewed to ensure that it is current and technically correct. Any changes in site conditions and/or the scope of work will require a review and modification to the HASP Addendum. Such changes will be documented in the form of a revision to this addendum.

2. KEY PERSONNEL

The following table contains information on key project personnel:

Title	Name	Telephone No.
Officer-in-Charge	Richard Waterman	508-485-2982
Program Health and Safety Officer	Peter Garger, CIH	410-771-4950
Program Manager/Quality Assurance/Quality Control Officer	Chris Canonica, P.E.	315-431-4610
Project Manager	Jennifer A. Martin, P.G.	315-431-4610
Quality Assurance/Quality Control Coordinator	Judith Graham	315-431-4610
Site Manager/Site Health and Safety Officer	Dave Crandall	315-431-4610
NYSDEC Project Manager	Robert Corcoran	518-402-9620

3. SCOPE OF WORK

This HASP Addendum was developed to designate and define site-specific health and safety protocols applicable to project activities. It is to be implemented and followed during field activities at the Love Cleaners site in Hempstead, New York. The scope of work covered by this HASP Addendum includes environmental sampling consisting of surface and subsurface soil, groundwater, and soil vapor sampling at various locations throughout the targeted area:

- Subsurface soil and *in situ* groundwater samples at 10 on-site locations
- *In situ* groundwater samples at four off-site locations
- Soil vapor samples from six locations surrounding the subject structure and beneath the subslab
- Subslab soil vapor samples and co-located surface soil samples from two locations
- Surface soil samples from up to four locations in the vicinity of the site.

Additional detail for each activity is provided in the Work Plan for a Site Characterization.

4. POTENTIAL HAZARD ANALYSIS

Based upon the above field activities, the following potential hazard conditions may be anticipated:

- The use of mechanical equipment such as drill rigs, powered augers, and hammer drills can create a potential for crushing and pinching hazards due to movement and positioning of the equipment; movement of lever arms and hydraulics; entanglement of clothing and appendages in exposed drives and augers; and impact of steel tools, masts, and cables should equipment rigging fail or other structural failures occur during hydraulic equipment operation and drilling mast extension and operation. Heavy equipment work must be conducted only by trained, experienced personnel. If possible, personnel must remain outside the turning radius of large, moving equipment. At a minimum, personnel must maintain visual contact with the equipment operator. When not operational, equipment must be set and locked so that it cannot be activated, released, dropped, etc.

- Equipment can be energized due to contact with overhead or underground electrical lines, utilities impaired by excavation of communication or potable/wastewater lines, or a potential for fire or explosion may occur due to excavation of below ground propane/ natural gas lines. Prior to commencement of invasive operations, a drilling/excavation permit will be obtained and the area will be inspected and flagged. Personnel should be aware that although an area may be cleared, it does not mean that unanticipated hazards will not appear. Safe distances will be maintained from live electrical equipment as specified in Generic HASP. Workers should always be alert for unanticipated events such as snapping cables, digging into unmarked underground utilities, etc. Such occurrences should prompt involved individuals to halt work immediately and take appropriate corrective measures to gain control of the situation.

- Work around large equipment often creates excessive noise. Noise can cause workers to be startled, annoyed, or distracted; can cause physical damage to the ear, pain, and temporary and/or permanent hearing loss; and can interfere with communication. If workers are subjected to noise exceeding an 8-hour time-weighted average sound level of 85 dBA, hearing protection will be selected with an appropriate noise reduction rating to comply with 29 CFR 1910.95 and to reduce noise below levels of concern.

- Personnel may be injured during physical lifting and handling of heavy equipment, construction materials, or containers. Additionally, personnel may encounter slip, trip, and fall hazards associated with excavations, manways, and construction debris and materials. Precautionary measures should be taken in accordance with the Generic HASP and this HASP Addendum.

- Field operations conducted during the winter months can impose excessive heat loss to personnel conducting strenuous activities during unseasonably cold weather days and can impose cold-related illness symptoms during unseasonably cold weather days, or when wind chill is high. In addition, heavy rains, electrical storms, and high winds may create extremely dangerous situations for employees.

- Entry into a confined space in support of this project is forbidden. However, it is not anticipated that confined space entry will be required during the completion of the field activities.

- Field investigation activities intended to define potential sources of environmental contamination often require employees to be in direct proximity or contact with hazardous substances. Employees may be exposed through inhalation of toxic dusts, vapors, or gases. Normal dust particulates from surficial soil may have adsorbed or absorbed toxic solvents, petroleum compounds, or toxic metal salts or metal particulates. Air monitoring equipment will be used to monitor airborne organic vapors and particulates. Water collected during well development and groundwater sampling activities may also contain toxic vapors, liquids, and gases and be inhaled during normal operations, or may be splashed onto the skin or eyes. Ingestion of toxic materials contained in dusts or particulates can be ingested if eating, smoking, drinking, and gum chewing are permitted prior to personnel washing their hands and face or removing contaminated work clothing and personal protective equipment. Some chemicals may be absorbed directly through the skin. Personal protective equipment, properly designed for the chemicals of concern, will always be provided and worn when a potential for skin contact is present.

5. PERSONAL PROTECTIVE EQUIPMENT

Based upon currently available information, it is anticipated that Level D protection will be required for currently anticipated conditions and activities. If at any time the sustained level of total organic vapors in the worker breathing zone exceeds 5 parts per million (ppm) above background, site workers will evacuate the area and the condition will be brought to the attention of the site Health and Safety Officer. Efforts will then be undertaken to mitigate the source of the vapors. Once the sustained level of total organic vapors has decreased to below 5 ppm above background, site workers will be allowed to continue activities at the direction of the site Health and Safety Officer.

The personal protective equipment components for use during this project are detailed in the Generic HASP. The components of Level D personal protective equipment are summarized below.

5.1 LEVEL D PERSONAL PROTECTIVE EQUIPMENT

Level D will be worn for initial entry onsite and initially for all activities and will consist of the following:

- Coveralls or appropriate work clothing
- Steel-toe, steel-shank safety boots/shoes
- Hard hats (when overhead hazards are present or as required by the site Health and Safety Officer)
- Chemical resistant gloves (nitrile/neoprene) when contact with potentially contaminated soil or water is expected
- Safety glasses with side shields
- Hearing protectors (during drilling or other operations producing excessive noise)
- Boot covers (optional unless in contact with potentially contaminated soil or water)
- Polycoated coveralls (optional when contact with contaminated soil and water is anticipated, e.g., when surging/pumping wells and pressure-washing equipment).

Insulated clothing, hats, etc. must be worn when temperatures or wind chill fall below 40°F.

6. SITE CONTROL AND SECURITY

Only authorized personnel will be permitted to conduct field activities. Authorized personnel include those who have completed hazardous waste operations initial training, as defined under OSHA Regulation 29 CFR 1910.120/29 CFR 1926.65, have completed their training or refresher training within the past 12 months, and have been certified by a physician as fit for hazardous waste operations.

6.1 SAFE WORK PRACTICES

Safe work practices that will be followed by site workers include, but are not limited to, the following rules:

- Working before or after daylight hours without special permission is prohibited.
- Do not enter restricted or posted areas without permission from the site Health and Safety Officer.
- Smoking is limited to designated areas.
- Possessing, using, purchasing, distributing, or having controlled substances in their system throughout the day or during meal breaks is prohibited.
- Consuming or possessing alcoholic beverages is prohibited.
- Good housekeeping – employees will be instructed about housekeeping throughout field activities.
- Sitting or kneeling in areas of obvious contamination is prohibited.
- Avoid overgrown vegetation and tall grass areas.

6.2 DAILY STARTUP AND SHUTDOWN PROCEDURES

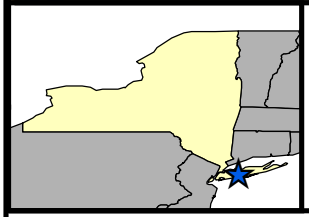
The following protocols will be followed daily prior to start of work activities:

- The site Health and Safety Officer will review site conditions to determine if modification of work and safety plans is needed.
- Personnel will be briefed and updated on new safety procedures as appropriate.

- Safety equipment will be checked for proper function.

- The site Health and Safety Officer will ensure that the first aid kit is adequately stocked and readily available.

- The Contractor is responsible for the security of its own equipment. All on-site equipment and supplies will be locked and secure.



Legend

★ Site Location

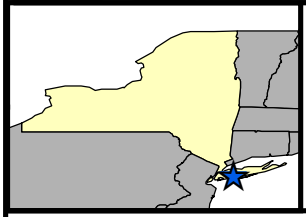
0 0.2 0.4 0.8 1.2 1.6 Miles

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION WORK PLAN
HEMPSTEAD, NEW YORK

FIGURE 1
Site Location Map

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JM	CJS	DCC	JM	AS SHOWN	SEPTEMBER 2008	14368.34	GIS/PROJECTS/ FIGURE1.MXD



Legend

- Proposed Soil/Groundwater Sample Location
- Proposed Groundwater Sample Location
- Proposed Soil Vapor Point Location
- Proposed Sub-Slab Vapor Point
- Proposed Surface Soil Sample Location

0 25 50 100 Feet

Source: NYSGIS Clearinghouse

LOVE CLEANERS (1-30-187)
SITE CHARACTERIZATION WORK PLAN
HEMPSTEAD, NEW YORK

FIGURE 2
Proposed Sampling Locations

PROJECT MGR:	DESIGNED BY:	CREATED BY:	CHECKED BY:	SCALE:	DATE:	PROJECT NO:	FILE NO:
JAM	DCC	DCC	JAM	AS SHOWN	SEPTEMBER 2008	14368.34	GIS/PROJECTS/ FIGURE2.MXD

Attachment A

Worker Training and Physical Examination Record

ATTACHMENT A

WORKER TRAINING AND PHYSICAL EXAMINATION RECORD

SITE: Love Cleaners Site, Hempstead, New York

Name	OSHA 40-Hour Hazardous Waste Operations Training		OSHA Hazardous Waste Supervisor Training	CPR (date of expiration)	First Aid (date of expiration)	Date of Last Physical Examination
	Initial	Annual				
EA PERSONNEL						
Tom Porter	2/3/89	11/8/06	3/3/89	---	---	6/12/01
Jennifer Martin	5/20/99	9/6/07	---	4/18/09	4/18/09	---
Scott L. Graham	4/15/94	9/6/07	9/1/94	6/26/09	6/26/09	---
Robert Casey	11/1/01	9/6/07	---	4/18/09	4/18/09	---
David Crandall	3/10/06	9/17/07	---	4/18/09	4/18/09	3/10/07
Richard Waterman	8/88	1998	2/94	3/04	3/05	---
SUBCONTRACTOR OR ADDITIONAL PERSONNEL						
---	---	---	---	---	---	---
---	---	---	---	---	---	---

NOTE: Prior to performing work at the site, this Health and Safety Plan must be reviewed and an agreement to comply with the requirements must be signed by all personnel, including contractors, subcontractors, and visitors. Contractors and subcontractors are ultimately responsible for ensuring that their own personnel are adequately protected. In signing this agreement, the contractors and subcontractors acknowledge their responsibility for the implementation of the Health and Safety Plan requirements. All personnel onsite shall be informed of the site emergency response procedures and any potential safety or health hazards of the operations.

Attachment B

Review Record

ATTACHMENT B

HEALTH AND SAFETY PLAN REVIEW RECORD

I have read the Health and Safety Plan for this site and have been briefed on the nature, level, and degree of exposure likely as a result of participation in this project. I agree to conform to all the requirements of this Plan.

SITE: **Love Cleaners Site, Hempstead**, **New York**			
Name	Signature	Affiliation	Date

Attachment C

Site Entry and Exit Log

ATTACHMENT C

SITE ENTRY AND EXIT LOG

SITE: **Love Cleaners Site, Hempstead, New York**				
Name	Date	Time of Entry	Time of Exit	Initials

Attachment D

Accident Investigation Report

ACCIDENT/LOSS REPORT

THIS REPORT MUST BE COMPLETED BY THE INJURED EMPLOYEE OR SUPERVISOR AND FAXED TO EA CORPORATE HUMAN RESOURCES WITHIN 24 HOURS OF ANY ACCIDENT. THE FAX NUMBER IS **(410) 771-1780**.

NOTE WHENEVER AN EMPLOYEE IS SENT FOR MEDICAL TREATMENT FOR A WORK RELATED INJURY OR ILLNESS, PAGE 4 OF THIS REPORT MUST ACCOMPANY THAT INDIVIDUAL TO ENSURE THAT ALL INVOICES/BILLS/CORRESPONDENCE ARE SENT TO HUMAN RESOURCES FOR TIMELY RESPONSE.

A. DEMOGRAPHIC INFORMATION:

NAME OF INJURED EMPLOYEE:_____
HOME ADDRESS:_____
HOME PHONE:_____ DATE OF BIRTH:_____
AGE:_____ SEX: M F
MARITAL STATUS:_____ NAME OF SPOUSE (if applicable)_____
SOCIAL SECURITY NUMBER:_____ DATE OF HIRE:_____
NUMBER OF DEPENDENTS:_____
EMPLOYEES JOB TITLE:_____
DEPT. REGULARLY EMPLOYED:_____
WAS THE EMPLOYEE INJURED ON THE JOB: Y N
PRIMARY LANGUAGE OF THE EMPLOYEE: _____

B. ACCIDENT/INCIDENT INFORMATION:

DATE OF ACCIDENT:_____ TIME OF ACCIDENT:_____
REPORTED TO WHOM: _____ NAME OF SUPERVISOR_____
EXACT LOCATION WHERE ACCIDENT OCCURRED (**including street, city, state, and county**):
_____
_____

EXPLAIN WHAT HAPPENED (include what the employee was doing at the time of the accident and how the accident occurred): _____
_____
_____
_____

DESCRIBE THE INJURY AND THE SPECIFIC PART OF THE BODY AFFECTED (i.e., laceration, right hand, third finger):
_____
_____

OBJECT OR SUBSTANCE THAT DIRECTLY INJURED EMPLOYEE:_____
_____
NUMBER OF DAYS AND HOURS EMPLOYEE USUALLY WORKS PER WEEK:_____
IS THE EMPLOYEE EXPECTED TO LOSE AT LEAST ONE FULL DAY OF WORK?_____
DOES THE EMPLOYEE HAVE A PREVIOUS CLAIM? Y N if yes, STATUS Open Closed
WAS THE EMPLOYEE ASSIGNED TO RESTRICTED DUTY? _____

C. ACCIDENT INVESTIGATION INFORMATION

WAS SAFETY EQUIPMENT PROVIDED? Y N If yes, was it used? Y N
WAS AN UNSAFE ACT BEING FORMED ? Y N If yes, describe_____
WAS A MACHINE PART INVOLVED? Y N If yes, describe _____
WAS THE MACHINE PART DEFECTIVE? Y N If yes, in what way _____
WAS A 3RD PARTY RESPONSIBLE FOR THE ACCIDENT/INCIDENT? Y N
If yes, list Name, address and phone number_____
_____
WAS THE ACCIDENT/INCIDENT WITNESSED? Y N
If yes, list Name, address and phone number: _____
_____

D. PROVIDER INFORMATION

WAS FIRST AID GIVEN ON SITE? Y N
If yes, what type of medical treatment was given _____
PHYSICIAN INFORMATION (if medical attention was administered)
NAME:_____
ADDRESS (incl. City, state and zip):_____
PHONE:_____

HOSPITAL ADDRESS (incl. Name, address, city, state, zip code & phone)
_____
_____

WAS THE EMPLOYEE HOSPITALIZED? Y N If yes, on what date_____
WAS THE EMPLOYEE TREATED AS AN OUTPATIENT, RECEIVE EMERGENCY TREATMENT OR AMBULANCE SERVICE? _____

PLEASE ATTACH THE PHYSICIANS WRITTEN RETURN TO WORK SLIP

***NOTE* A PHYSICIANS RETURN TO WORK SLIP IS REQUIRED PRIOR TO ALLOWING THE WORKER TO RETURN TO WORK**

E. AUTOMOBILE ACCIDENT INFORMATION (complete if applicable)

AUTHORITY CONTACTED AND REPORT #_____
EA EMPLOYEE VEHICLE YEAR, MAKE AND MODEL_____

V.I.N._____ PLATE/TAG #_____
OWNER'S NAME AND ADDRESS:_____
_____
DRIVER'S NAME AND ADDRESS: _____
_____
RELATION TO INSURED:_____DRIVER'S LICENSE #_____
DESCRIBE DAMAGE TO YOUR PROPERTY:_____
_____
_____
DESCRIBE DAMAGE TO OTHER VEHICLE OR PROPERTY:_____
_____
_____
OTHER DRIVER'S NAME AND ADDRESS: _____
_____
OTHER DRIVER'S PHONE:_____
OTHER DRIVER'S INSURANCE COMPANY AND PHONE:_____
_____
LOCATION OF OTHER VEHICLE:_____
NAME, ADDRESS AND PHONE OF OTHER INJURED PARTIES:_____
_____
_____
WITNESSES

NAME:_____ PHONE:_____
ADDRESS:_____
STATEMENT:_____
_____
SIGNATURE: _____

NAME:_____ PHONE:_____
ADDRESS:_____
STATEMENT:_____
_____
SIGNATURE: _____

F. ACKNOWLEDGEMENT

NAME OF SUPERVISOR:_____
DATE OF THIS REPORT: _____ REPORT PREPARED BY:_____

I have read this report and the contents as to how the accident/loss occurred is accurate to the best of my knowledge.

Signature: _____ Date: _____
Injured Employee

I am seeking medical treatment for a work related injury/illness.

Please forward all bills/invoices/correspondence to:

EA ENGINEERING, SCIENCE, AND TECHNOLOGY, INC.

11019 McCORMICK ROAD

HUNT VALLEY, MD 21031

ATTENTION: Michele Bailey
HUMAN RESOURCES

(410) 584-7000

INCIDENT REPORT

THIS REPORT IS TO BE COMPLETED WHEN A NEAR MISS OCCURS THAT COULD HAVE POTENTIALLY RESULTED IN SERIOUS PHYSICAL HARM. PLEASE FAX THIS FORM TO EA HUMAN RESOURCES DEPARTMENT AT **(410) 771-1780**.

EXPLAIN WHAT HAPPENED (include what the employee was doing at the time the near miss and how it occurred:) _____

REPORT PREPARED BY: _____ DATE:_____

Attachment E

Emergency Telephone Numbers and Hospital Directions

ATTACHMENT E

EMERGENCY TELEPHONE NUMBERS AND HOSPITAL DIRECTIONS

SITE: Love Cleaners Site, Hempstead, NY.	
Police: Hempstead Police Department, 99 Nichols Ct., Hempstead, NY (516) 483-6200	9-1-1
Fire: Hempstead Fire Department, 75 Clinton St., Hempstead, NY (516) 486-0311	9-1-1
Ambulance:	9-1-1
Hospital: Hempstead General Hospital, 800 Front St., Hempstead , NY	(516) 564-4827
Poison Control Center: American Association of Poison Control Centers	(800) 222-1222
Directions to Hempstead General Hospital, 800 Front St., Hempstead, NY 11550 Head south on Clinton Street toward Jackson Street (0.8 miles) Turn left at Front Street (0.4 miles) End at Hempstead General Hospital, 800 Front St., Hempstead, NY 11550 Total trip is 1.2 miles; travel time is approximately 4 minutes.	
Program Safety and Health Officer: ***Peter Garger, CIH***	(410) 771-4950
Program Manager: ***Christopher Canonica, P.E.***	(315) 431-4610
EA Project Manager ***Jenifer Martin***	(315) 431-4610
In case of spill, contact *Judy Graham*	(315) 431-4610
EA Medical Services EMR 4360 Chamblee Dunwoody Road, Suite 202 Atlanta, Georgia 30341 ***Contact: Dr. Elayne F. Theriault***	(800) 229-3674
Site Manager/Site Health and Safety Officer: ***David Crandall***	(315) 431-4610
In case of accident or exposure incident, contact Corporate Health and Safety Officer ***Peter Garger***	(410) 771-4950

Attachment F

Emergency Equipment Available Onsite

ATTACHMENT F

EMERGENCY EQUIPMENT AVAILABLE ONSITE

Type of Equipment	Location
Communications Equipment	
Mobile Telephone	In EA vehicle
Medical Support Equipment	
First Aid Kits	In EA vehicle
Eye Wash Station	In EA vehicle
Fire Fighting Equipment	
Fire Extinguishers	In EA vehicle

Attachment G

Map to Hospital

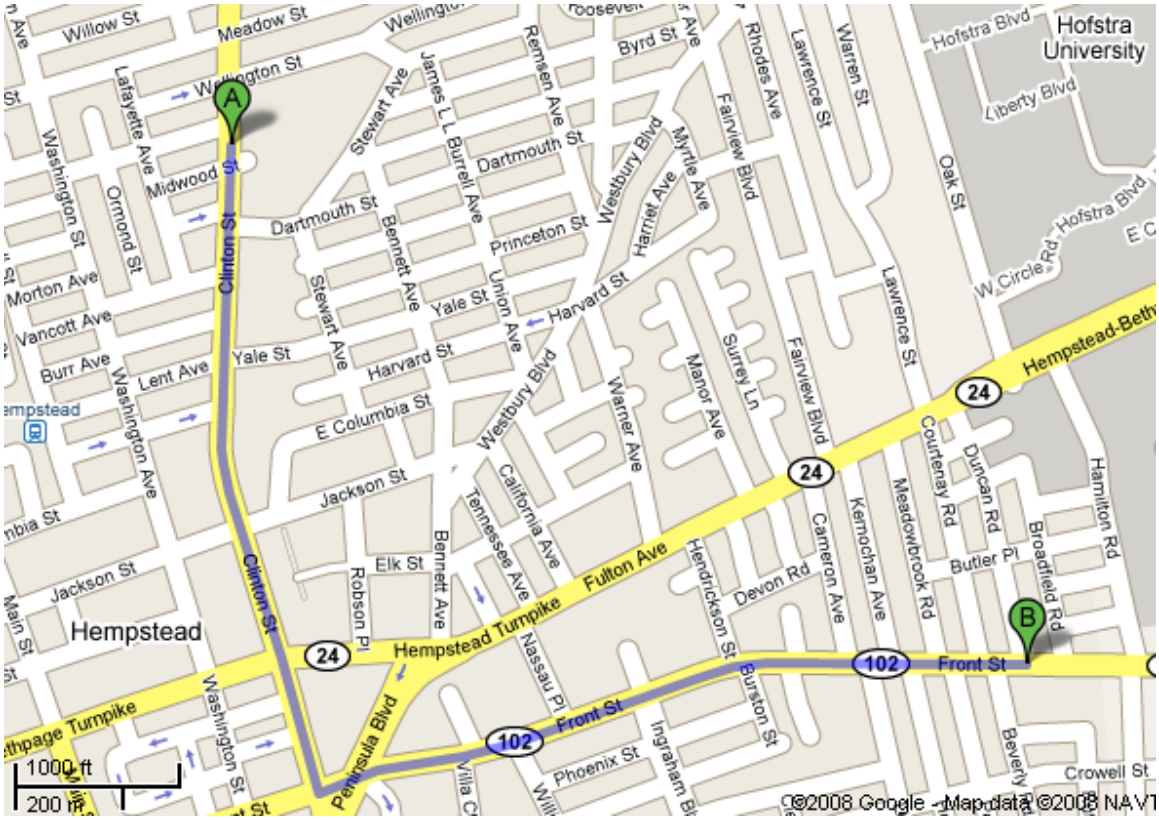
ATTACHMENT G

MAP TO HOSPITAL

Directions to Hempstead General Hospital, 800 Front St., Hempstead, NY 11550

Head south on Clinton Street toward Jackson Street (0.8 miles)
Turn left at Front Street (0.4 miles)
End at Hempstead General Hospital, 800 Front St., Hempstead, NY 11550

Total trip is 1.2 miles; travel time is approximately 4 minutes.



Attachment H

Personal Protective Equipment
Activity Record

ATTACHMENT H

PERSONAL PROTECTIVE EQUIPMENT ACTIVITY RECORD

SITE: **Love Cleaners Site, Hempstead, New York**		
Weather Condition:		Onsite Hours: From To
Changes in Personal Protective Equipment Levels[(a)]	Work Operations	Reasons for Change
Site Health and Safety Plan Violations	Corrective Action Specified	Corrective Action Taken (yes/no)
Observations and Comments:		
Completed by: _____ Site Health and Safety Officer		Date
(a) Only the Site Health and Safety Officer may change personal protective equipment levels, using only criteria specified in the Health and Safety Plan.		