VOLUME I

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT REPORT

INTERNATIONAL SILVER COMPANY, FACTORY H

MERIDEN, CONNECTICUT

Prepared for:

City of Meriden

Economic Development

142 East Main Street

Meriden, Connecticut 06450

Prepared by:

Metcalf & Eddy, Inc.

860 North Main Street Extension

Wallingford, Connecticut 06492

MARCH 28, 2007

METCALF & EDDY | AECOM

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PHASE II/III ENVIRONMENTAL SITE INVESTIGATION REPORT
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT

EXECUTIVE SUMMARY

Metcalf & Eddy, Inc. conducted a Phase II/III Environmental Site Investigation (Phase II/III ESA) for the approximate 7.2 acre International Silver Company (Insilco) Factory H property in Meriden, Connecticut. The Insilco Factory H property consists of two parcels separated by Harbor Brook. The western parcel, 77 Cooper Street, is occupied by the dilapidated factory building, which covers approximately 90 percent of the parcel. The eastern parcel, 104 Butler Street, consists of an open area with one building, a water tower, and was formerly occupied by a foundry, machine shop and gun manufacturer. The work was conducted under an EPA Brownfields Assessment Grant awarded to the City.

The Phase II/III involved a variety of pre-field and field activities. Pre-field work included a review of available environmental reports conducted by other consultants, preparation of United States Environmental Protection Agency (US EPA) approved work plans/quality assurance project plans, development of a site-specific health & safety plan, coordination for property access, and procurement and coordination with subcontractors, sample location stakeout and utility clearance. Field activities included the completion of 28 soil borings, six of which were finished as groundwater monitoring wells, the collection of 52 soil boring samples, 29 surficial soil samples, (including QA/QC samples and two river bank (RB) samples collected from the upper 2-4 feet on the western bank of Harbor Brook), and six groundwater samples (including one QA/QC sample), and land surveying for base map preparation.

An additional eight soil borings were completed as monitoring wells near the eastern property boundary on the 104 Butler Street parcel to evaluate a VOC groundwater plume, adjacent to residential structures along Cherry Street. An additional eight

groundwater samples and two soil boring samples were collected. A total of 21 areas of concern (AOCs) were investigated during the Phase II/III ESA.

In addition to the work described above, an engineer's opinion of cost for asbestos removal and demolition of the factory building, dust collectors, transformer building and water tower was prepared.

Data from previous investigations was incorporated into the Phase II/III, and AOCs and areas of contamination mitigated by the Connecticut Department of Environmental Protection (CTDEP), referred to as "Stabilization Areas" (SAs), were combined where appropriate. Combining AOCs and SAs, a total of 56 AOCs/SAs have been identified for the site. Soil and groundwater results were compared to criteria provided in the Connecticut Remediation Standard Regulations (RSRs) so that remediation requirements could be evaluated. The following constituents of concern (COCs) were identified in exceedance of the applicable RSR criteria; metals, polycyclic aromatic hydrocarbons (PAHs), extractable total petroleum hydrocarbons (ETPH), and volatile organic compounds (VOCs). Based on the data collected during the Phase II/III ESA, supplemental investigations and/or remediation are recommended in a number of AOCs/SAs to comply with the RSRs.

Depending upon site redevelopment plans, alternative measures including engineered controls and/or an Environmental Land Use Restrictions (ELURs) may be incorporated into the remediation/redevelopment actions to help reduce remediation costs. Each AOC investigated in this Phase II/III ESA, including those AOCs previously investigated by others, are discussed in subsequent sections of this report and are also summarized in a Conceptual Site Model (CSM).

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT REPORT
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT

1.0 INTRODUCTION

Metcalf & Eddy, Inc. (M&E) has completed a Phase II/III Environmental Site Assessment (Phase II/III ESA) for the two abutting parcels located at 77 Cooper Street and 104 Butler Street, and commonly referred to as the Former International Silver Company (Insilco), Factory H property, located at 77 Cooper Street in Meriden, Connecticut (herein referred to as "the site"). The site was investigated on behalf of the City of Meriden, Office of Economic Development (the "City"), to further assess areas of environmental concern (AOCs) identified during previous investigations, better delineate a VOC plume near the eastern property boundary, develop a comprehensive conceptual site model (CSM) and to evaluate remediation requirements based on the data collected. This report is subject to the Statement of Limitations provided as Appendix A.

The Phase II/III was conducted in accordance with the following documents:

- Scope of Work (SOW) for the Completion of Phase I/II/III Environmental Site Assessments for the Insilco, Factory H site, dated January 31, 2006; and it's amendment dated September 13, 2006.
- Quality Assurance Program Plan (QAPP) and QAPP Addendum prepared for the Insilco, Factory H site (March 27, 2006 and November 6, 2006).

In addition to the information and data collected by M&E, information from previous environmental investigations, including M&E's April 2006 Phase I ESA and CTDEP site stabilization activities have been incorporated into this report. See Section 2.5 of the report for a more detailed discussion regarding previous environmental studies.

1.1 SCOPE OF WORK AND OBJECTIVES

Based on the Phase I ESA findings and the Phase II/III scope of work, the Phase II/III investigation was performed to:

- Investigate the property for the presence of soil and groundwater contamination.
- Supplement existing data and further evaluate select AOCs to better assess the degree and extent of constituents of concern (COCs) in those locations.
- Better delineate a VOC groundwater plume at the eastern property boundary on the 104 Butler Street parcel.
- Collect soil and/or groundwater samples in Stabilization Areas where data is either absent or limited, in order to assess the likelihood that a release has occurred.
- Develop a CSM and assess remedial options that are consistent with future redevelopment requirements at the site.
- Provide recommendations for additional investigations and/or remediation (as needed) that are consistent with the RSRs and related site characterization guidelines.

The Phase II/III investigation did not include any sample collection or analysis of soil or groundwater beneath Building A, located on the 77 Cooper Street property.

An engineers opinion of cost for asbestos removal and building demolition of the factory (Building A), dust collectors, the transformer building (building B) and the water tower was prepared and was provided to the City of Meriden in a separate transmittal.

The specific tasks performed as part of the Phase II/III to meet the stated objectives are presented below:

<u>Pre-Field Tasks</u>

- Preparation of a QAPP, QAPP Addendum and a site specific Health and Safety Plan (HASP) to provide guidelines for the Phase II/III work.

- Coordination with the United States Environmental Protection Agency (USEPA), CTDEP, City of Meriden and subcontractors; and
- Sample location stakeout and utility clearance.

Field Work

- Conduct site surveying and mapping;
- Complete Geoprobe® soil borings and monitoring well installations to provide for soil and groundwater sample collection;
- Collect groundwater and surface water (Harbor Brook) measurements;
- Collect surficial and soil boring soil samples to provide chemical data; and
- Collect groundwater samples utilizing the low flow sampling method to also provide chemical data and evaluate potential migration pathways.

Reporting Tasks

- Summarize and evaluate soil and groundwater sampling;
- Compare and evaluate analytical results with the RSR criteria;
- Develop a conceptual site model (CSM) that presents a tabulated summary of the AOC data; and
- Provide conclusions and recommendations.

2.0 SITE SETTING AND BACKGROUND

The following subsections describe the site setting and background based on files reviewed at Meriden City Hall and the CT DEP office in Hartford, Connecticut.

2.1 Site Location and Description

The site consists of two parcels, and is located at 77 Cooper Street and 104 Butler Street in the City of Meriden, New Haven County, Connecticut (see Figure 1 in Appendix B - Figures). The approximate site boundary and AOCs are shown on Figure 2. Appendix C contains photographs of the site taken during M&E field activities. The site is approximately 7.2 acres in size and bisected by Harbor Brook. The site is zoned for manufacturing uses. Portions of the site are located within the

100-year flood plain. The site is currently unused and fenced. The current owner is listed as BL&A Associates LTD Partnership, St. James, New York.

Three buildings, constructed from approximately 1886 to 1947, are present on the site: Building A (Factory H) is a 100,000± ft^2 multi-story former manufacturing structure; Building B is a 900± ft^2 former transformer/electrical house; and Building C is a 7,200± ft^2 former power plant. There are several additional structures, including a footbridge and water tower on the site. A fourth building (Building D), formerly on the northeast portion of the site, was destroyed by fire and demolished circa 1980. Initially a gun manufacturing shop, Building D housed a machine shop, a foundry, and a pattern shop. Building A resides to the west of the brook on the 77 Copper Street parcel; Building B is constructed immediately above Harbor brook while Buildings C and Former Building D are located east of the brook, on the 104 Butler Street parcel.

Approximately 25 cyclone-like dust collectors are situated along the east side of Building A on the 77 Cooper Street parcel. The dust collectors collected metal dust from the former silverware manufacturing operations. During 2004-2005, Advanced Environmental Interface, Inc. (AEI) and the CTDEP supervised amongst other activities, the removal and disposal of metal-laden dust piles and soil beneath and adjacent to the dust collectors as well as metal laden dust residue from the collectors themselves.

2.2 Surrounding Areas

The site is located in an area of mixed commercial, industrial, and residential land use. Land uses adjacent to the site include commercial, light industrial and residential. The site is: bordered by railroad tracks and Cherry Street residences to the east; commercial properties, Harbor Towers and Hanover Towers to the north; Louie's Auto Garage and Cooper Street to the south/southeast; and the former Veteran's Memorial Medical Center and Cook Avenue residences to the west. A

Northeast Utilities natural gas facility and residential properties are located to the south of the site, across Cooper Street.

2.3 Site History and Use

The site and site history was described in M&E's Phase I ESA, the Brownfields Targeted Site Assessment Final Report (Weston, September 1999) and Supplemental Phase II Environmental Site Evaluation (GZA, June 2000).

The site was used for a variety of industrial and manufacturing purposes from the late 1800s until approximately 1974, at which time the property was vacated. Industrial processes historically conducted on the site included silverware manufacturing (e.g. International Silver Company) and gun manufacturing (e.g. Parker Brothers). Processes included casting, plating, machining, trimming, polishing, buffing, forging, storage, and shipping. The property has remained unused since the late 1970s, and is currently abandoned.

Factory H is known to have used alkali soaps, sulfuric acid, oils, nickel, silver, chromium, copper, zinc, acid and alkali solutions, and halogenated and non-halogenated solvents. Other constituents of concern on the site include asbestos, other metals (including lead), cyanide, PCBs, total petroleum hydrocarbons, and volatile and semi-volatile organic compounds.

2.4 Site Utilities

Municipal water and sewer service connections exist at the site, but are currently inactive. Other site utilities include underground natural gas, electric and telephone. No records of on-site septic, except for a reported dry well on the eastern portion of the site (Weston, 1999), were found.

The underground natural gas line(s) are considered "active" and are located in the vicinity of the brook.

2.5 Previous Environmental Studies

A number of studies have been completed on the site. Information from these reports has been included in the Phase II/III report. A list of the known studies is provided below.

- HRP Associates, Inc., *Site Assessment Report*, June 21, 1988.
- Advanced Environmental Interface (AEI). *Assessment of Site Environmental Conditions Report*, January 24, 1990.
- ICF Kaiser Engineers, Inc., *Underground Storage Tank Sampling Report*, December 17, 1990.
- Roy F. Weston, Inc., *Removal Program Preliminary Assessment/Site Investigation Report*, December 22, 1997.
- Roy F. Weston, Inc., International Silver Company, Factory H, *Brownfields Targeted Site Assessment Final Report*, September 8, 1999.
- GZA GeoEnvironmental, Inc., *Supplemental Phase II, Environmental Site Evaluation, International Silver Company, Factory H Site, Meriden, Connecticut*, June 2000.
- Subsurface Information Surveys. *Ground Penetrating Radar Survey Results For The Investigation For The Location Of: Underground Storage Tanks & Utilities At: 77 Cooper St., Meriden, CT*, July 2005.
- Advanced Environmental Interface (AEI). *Removal Stabilization Activities Summary Report, Former International Silver Company/Insilco Factory H Site, Meriden, CT*, February 2006.
- Metcalf & Eddy, Inc., (M&E). *Phase I Environmental Site Assessment Report, Insilco Factory H Site, Cooper Street, Meriden, Connecticut,* April 2006.

During completion of the investigations listed above, soil, sediment, soil gas, and groundwater samples were collected and analyzed for site-related COCs. Metals, cyanide, volatile organic compounds (VOCs), petroleum hydrocarbons (TPH), polycyclic aromatic hydrocarbons (PAHs), and asbestos were detected on-site and are associated with a number of AOCs identified for the site.

Potential and known areas of concern (AOCs) were identified in the following two reports:

- Roy F. Weston, Inc., International Silver co., Factory H, *Brownfields Targeted Site Assessment Final Report*, September 8, 1999.
- GZA GeoEnvironmental, Inc., *Supplemental Phase II, Environmental Site Evaluation, International Silver Company, Factory H Site, Meriden, Connecticut*, June 2000.

Weston identified a total of 29 (AOCs). Four additional AOCs were identified by M&E, for a total of 33 AOCs. All 33 AOCs, designated AOC-1 to AOC-33, are listed in Table 1 in Appendix D. Each area is varied with respect to the number of soil and groundwater samples collected and the laboratory analyses performed. With the exception of AOC-25 (Contaminated Groundwater) and AOC- 31 (Site-Wide Surficial Soils), all AOCs are shown on Figure 2.

Under the guidance of the CTDEP in 2004-2005, and on behalf of MidState Medical Center (MMC), removal/stabilization activities were performed by Advanced Environmental Interface, Inc. (AEI) to remove certain hazardous materials and stabilize certain hazardous conditions at the former International Silver Company/Insilco Factory H site. Data from this and other investigations is provided in Appendix E.

The Removal/Stabilization Activities Summary Report (AEI, February 2006) describes these activities. A total of 23 removal/stabilization areas were identified as SA-A to SA-W and are also listed in Table 1 (Appendix D). The types and quantities of materials removed/stabilized are discussed in the Roy F. Weston Inc. and GZA GeoEnvironmental, Inc. reports listed above.

These removal/stabilization areas have been assigned labels of "Stabilization Area" A through W (SA-A to SA-W). As shown on Table 1, a number of the stabilization

areas overlap with specific AOCs. It appears that confirmatory soil sampling was generally not conducted during the stabilization/removal process.

Combining AOCs and SAs (where appropriate), a total of 56 AOCs/SAs have been identified for the site (see Figure 2).

2.6 Geology and Hydrogeology

According to the Bedrock Geological Map of the Meriden Quadrangle of Connecticut (USGS, 1985), the bedrock underlying the site is mapped as the New Haven Arkose. Arkose is generally defined as sandstone, consisting of the minerals feldspar and quartz.

The Surficial Materials Map of Connecticut identifies the unconsolidated material overlying bedrock as a mixture of gravel and sand (CTDEP, 1992).

According to the Water Classification Map of Connecticut (CTDEP, 1993), groundwater at the site is classified as GB groundwater. Class GB groundwater is presumed to have been degraded by past urban or industrial activities and may not be suitable for human consumption without treatment (CTDEP, April 12, 1996). Flow direction was estimated by Weston (1999). On the eastern portion of the site, groundwater is estimated to flow in a southwesterly direction towards Harbor Brook. Conversely, on the western portion of the site, groundwater is estimated to flow in a southeasterly direction towards Harbor Brook. There are no known potable water supply wells within 500 feet of the site.

The site is bisected by Harbor Brook, which discharges to the Quinnipiac River. Harbor Brook has a B surface water classification (CTDEP, 1993). A B surface water classification indicates that the water may be a suitable fish and wildlife habitat (CTDEP, December 17, 2002). CTDEP's goal is to maintain a B water quality classification.

3.0 RSR CRITERIA

The Regulations of Connecticut State Agencies (RCSA) Sections 22a-133k-1 through 22a-133k-3, inclusive, comprise the RSRs. These regulations are applicable to various sites in Connecticut including those undergoing investigation and remediation under an administrative order from CTDEP or under the voluntary remediation program. The subject sites are proposed to be remediated under one of Connecticut's voluntary remediation programs as described in RSCA Sections 22a-133x and 133y.

Four existing and former buildings, identified as Buildings A through D are located on-site. Portions of the site are located within the 100 year flood plain, which is zoned for manufacturing uses, has remained vacant since the 1970s, and is currently abandoned. The criteria are discussed in the following subsections.

3.1 Soil Remediation Criteria

The RSRs contain numerical, default criteria for contaminated soil associated with a release area that are based on both the potential for direct human health impacts from exposure to contaminants (direct exposure criteria) and on the potential for the soils to have an adverse impact on groundwater (pollutant mobility criteria). Two sets of direct exposure criteria are specified: one derived for residential land use, and the other derived for industrial and commercial land use. Similarly, two sets of pollutant mobility criteria are specified: one for areas with a groundwater classification of GA/GAA, and one for a groundwater classification of GB. Class GA/GAA groundwater is groundwater that is an existing or potential source of potable water and is presumed to be suitable for human consumption without the need for treatment. Class GB groundwater is presumed to have been degraded by past urban or industrial activities and may not be suitable for human consumption without treatment. Additional information on these criteria is presented in the following sections.

3.1.1 *Direct Exposure Criteria*

The RSR definition of "residential activity" includes activities related to a residence or dwelling, as well as activities related to schools, hospitals, daycare centers, playgrounds, or outdoor recreation areas. The residential direct exposure criteria ("RDEC") apply in areas with residential activities, but are also the default criteria used to evaluate potential human exposure in all areas. Industrial/commercial direct exposure criteria ("I/C DEC") may be applied to areas that do not fit the definition of residential activity, but an Environmental Land Use Restriction ("ELUR") must be recorded to prevent residential uses of the property. These criteria are for comparison to soils data analyzed on a mass of contaminant to mass of soil basis (typically milligram per kilogram, or mg/kg).

3.1.2 *Pollutant Mobility Criteria*

The RSRs include a set of numerical pollutant mobility criteria for soils contaminated with organic contaminants in GA and GB areas on a mass/mass basis. Alternatively, the results of TCLP (toxicity characteristic leachate procedure) or SPLP (synthetic precipitation leachate procedure) analyses for some organic contaminants can be compared to the groundwater protection criteria (GWPC) times 10. This allows for the comparison of the detected mass of contaminant per liter of leachate (mg/L). The RSR criteria for inorganic contaminants are based on TCLP or SPLP analysis of the soil, but the PMC x 20 screening method may be used to evaluate the potential for PMC exceedances. The PMC X 20 screening method allows for a rough comparison, is not a RSR criterion, and is used as a tool to evaluate potential PMC issues.

The CTDEP may also approve alternative pollutant mobility criteria, however, a site-specific demonstration may be required that shows that after dilution of soil water with on-site groundwater, the groundwater protection criteria will not be exceeded.

3.2 Groundwater Remediation Criteria

The RSRs also contain numerical, default criteria for contaminated groundwater associated with a release area. Criteria are established to protect groundwater and surface water resources, and to protect human health from contaminants that may volatilize from contaminated groundwater. Additional information on these criteria is presented in the following sections.

3.2.1 Groundwater Protection Criteria

The RSRs specify only one set of drinking water-based groundwater protection criteria for both GA and GB areas. However, the remediation goals differ by groundwater classification. For GA areas, the goal is to maintain background concentrations or, at a minimum, the default groundwater protection criteria (GWPC). In GB areas, the goal is to maintain the quality of the groundwater to support existing uses. Site groundwater is classified GB and therefore, the GWPC does not apply.

3.2.2 Surface Water Protection Criteria

The surface water protection criteria (SWPC) is used to evaluate potential impacts to surface waters that receive discharge of contaminated groundwater. If the discharge of such groundwater interferes with the attainment of surface water quality standards, then groundwater remediation may be required. In addition, if the groundwater discharges to a wetland or to an intermittent stream, aquatic life criteria (ALC) and human health criteria (HHC) established in Appendix D of the Water Quality Standards (CTDEP, December 17, 2002) are used to evaluate the need for remediation. According to the RSRs, alternative surface water protection criteria (ASWPC) may be calculated and submitted to CTDEP for approval.

3.2.3 Volatilization Criteria

The RSRs include volatilization criteria (VC) for contaminated groundwater within 30 feet of the ground surface or a building (proposed March 2003). The intent of these criteria is to prevent human exposure to volatile organic vapors emanating

from impacted groundwater. As with the soil criteria, volatilization criteria for both residential (R VC) and industrial/commercial (I/C VC) uses are specified, and alternative criteria may be developed with the approval of the CTDEP. Groundwater on the site is typically found within 10 feet of the ground surface.

3.3 Additional RSR Information

In addition to the criteria discussed above, the RSRs include additional information on statistical evaluation of sample data, such as the use of 95% upper confidence level data to compare to the RSR criteria; rendering soil that exceeds DEC inaccessible, which requires the institution of environmental land use restrictions; reuse of polluted soil; engineered controls of contaminated media; remediation requirements for non-aqueous phase liquids (NAPL); development of criteria for substances that are not specified in the RSRs; development of alternative criteria; technical impracticability; and other issues. In addition, there are soil vapor criteria and indoor air target concentrations that may be used to evaluate volatilization issues if the VC are exceeded.

3.4 RSR Criteria Applicable To The Site

Based on the GB groundwater designation in the area and the potential land uses of the site following redevelopment, the RSR criteria that apply to soil data obtained from this investigation are the GB PMC and RDEC. Since the RDEC are the RSR default criteria, and the RSRs permit Environmental Land Use Restrictions (ELUR) that constrict future use of a site to non-residential uses, comparison to the I/C DEC is also applicable. Groundwater data are compared to the SWPC, R VC, and I/C VC.

In addition to the default RSR criteria utilized to evaluate contaminant concentrations in soil, the GWPC X10 was used to compare SPLP results of organic compounds.

Total metal concentrations were screened for potential GB PMC exceedances using the mass based PMC X 20 screening method. Typically, total metal concentrations

which exceed the PMC X 20 screening method are capable of yielding leachable amounts which exceed the PMC – TCLP/SPLP methods. The CTDEP allows this screening method to evaluate potential PMC exceedances without having to perform leachable testing.

3.5 Disposal Characterization Criteria

In addition to the RSR criteria discussed above, samples of soil from contaminated areas on site were analyzed for disposal characterization parameters to evaluate potential off-site waste disposal options. The results of these samples were compared to Resource Conservation and Recovery Act (RCRA) hazardous waste characterization criteria.

4.0 PHASE II/III INVESTIGATION ACTIVITIES

4.1 Pre-Field Work

4.1.1 QAPP Preparation and Coordination with EPA

The Phase II/III ESA work performed at the site was completed in accordance with M&E's March 15, 2006 QAPP and M&E's November 6, 2006 QAPP Addendum, which were reviewed and approved by EPA Region I. The QAPP's included a sample design, which utilized the Conceptual Site Modeling (CSM) process described in the text entitled "Conceptual Site Modeling: A Process for Effective Site Characterization, Environmental Professionals' Organization of Connecticut, June 8 & 12, 2001, Gray Conference Center, University of Hartford".

4.1.2 Health and Safety Plan

Prior to initiating intrusive field activities at the site, a site-specific Health and Safety Plan (HASP) was developed. The HASP was designed to meet the requirements of 29 CFR 1910.120. The HASP assumed that modified Level D personal protection was sufficient for all field work. The air in the breathing zone was monitored for organic vapors during intrusive activities using appropriate instrumentation.

4.1.3 Property Access Coordination

M&E coordinated with the City to obtain access to the site.

4.1.4 Subcontractor Procurement and Coordination

Prior to the commencement of field activities, M&E contracted with the following companies.

- Nafis & Young Engineering, of Northford, CT – surveying
- Contest Analytical Laboratory of East Longmeadow, MA – analytical services
- Glacier Drilling, LLC, of Bolton, CT and Aquifer Drilling & Testing, Inc. of Bloomfield, CT – drilling services

4.2 Field Work

Field work included: land surveying for base map preparation, sample location stakeout and utility clearance, advancing geoprobe soil borings, collection of geoprobe soil samples, surficial soil samples, installing groundwater monitoring wells and the collection of groundwater samples via low flow sampling procedures. All soil and groundwater samples were collected in accordance with the QAPP's and sample design.

4.2.1 Site Survey, Map and Figure Preparation

M&E contracted Nafis & Young Engineers to survey pertinent site features such as building footprints, utility features, soil borings, groundwater monitoring wells and sample locations. Utilizing an aerial photograph of the site and the survey data, a base map was constructed. Utilizing the base map, M&E generated the following figures. (All figures are presented in Appendix B)

- Figure 2 – AOCs and CTDEP Removal/Stabilization Areas
- Figure 3 – Sample Location Plan
- Figure 4 – Soil Samples (0-2' bg) Exceeding RSR Criteria
- Figure 5 – Soil Samples (2-4' bg) Exceeding RSR Criteria
- Figure 6 – Soil Samples (>4' bg) Exceeding RSR Criteria
- Figure 7 – Groundwater Exceedances and Contour Map

4.2.2 Sample Location Marking/Utility Clearance

M&E performed a pre-mobilization stakeout of sampling locations based upon known or suspected locations of AOC features and buried utilities. Utility clearance for public utilities was accomplished by contacting the Call-Before-You-Dig public underground utility mark-out service. On-site private utilities were avoided by consulting historical maps and engineering drawings, and locating visible gas and water metering areas and associated aboveground appurtenances on the properties.

4.2.3 *Geoprobe Soil Borings and Monitoring Well Installation*

Glacier Drilling, LLC, provided a truck-mounted Geoprobe® drilling rig to advance a total of 28 soil borings from March 29 – 31, 2006. Of those 28 soil borings, six were completed as monitoring wells. Soil samples were collected from each boring using the geoprobe sampling method. On November 22, 2006, Aquifer Drilling & Testing, Inc. (ADT) provided two Geoprobe drilling rigs to install eight monitoring wells to better delineate the VOC plume near the eastern property boundary on the 104 Butler Street parcel.

The geoprobe equipment utilizes direct-push hydraulics to advance drilling tools for collection of soil and/or groundwater samples from selected intervals. Borings were advanced by pushing steel drilling rods with a 4-foot long Macrocore® sampler equipped with a disposable acetate liner for sample extrusion. Each 4-foot drilling interval was drilled and sampled in this manner until the targeted depth was reached. Once each acetate core liner was extruded from the Macrocore® sampler, M&E personnel examined and classified the recovered soil. Samples from selected intervals were collected, preserved, and stored for later analysis at an off-site laboratory.

Groundwater monitoring wells were completed at selected boring locations by inserting 1-inch diameter PVC well screen and solid riser into the open borehole, and installing filter sand to the ground surface. The wells were completed with flush-mounted curb boxes set in concrete and equipped with locking caps. Each well was developed using pumping/surging techniques until the well development purge water was visually clear of sediments. Refer to the soil boring and monitoring well construction logs included in Appendix F.

4.2.4 *Soil Sampling*

Soil samples were collected from each soil boring (SB) for visual observation of potential staining/discoloration, screening for VOCs using a calibrated photoionization detector (PID), and where required, preservation and shipment

to the analytical laboratory. In addition to soil samples collected using the geoprobe, a number of surficial soil samples were collected using hand tools, including a stainless steel spade/shovel and dedicated sampling spatulas. With the exception of one surficial soil sample collected on May 10, 2006, and two soil boring samples collected on November 22, 2006 during the VOC Groundwater Plume Study, all soil samples were collected on March 19-21, 2006. A total of 83 soil samples were collected for laboratory analysis; 29 are considered surficial soil (SS) samples, two of which were collected along the river bank (RB) on the west side of Harbor Brook. Of the 83 soil samples, seven were submitted for QA/QC (MS/MSD/DUP) analysis. Sample nomenclature, preservation, chain-of-custody, and other QA/QC procedures followed during collection of samples for laboratory analysis and in accordance with QAPP requirements are described in Section 4.3 of this report. Table 2 presents a soil and groundwater analytical summary.

Soil samples were collected in AOCs/SAs as presented in Figure 3.

Soil samples were collected from each boring and screened with a PID while completing the VOC Plume Study. Based on field screening, two soil samples were submitted to the laboratory for VOC analysis.

4.2.5 Groundwater Measurements and Sampling

On April 14th and 17th, 2006, approximately fourteen days following installation of the M&E 2006 monitoring wells, M&E collected groundwater samples from 13 site wells. Refer to Figure 3 (Sample Location Plan) for sample locations and Table 3 for groundwater measurements and elevations.

Groundwater samples were also collected from the eight additional VOC Plume Study wells (identified as MW-100 through MW-107) on November 29, 2006, seven days after installation and development.

Groundwater samples from a total of 21 site wells were collected in accordance with USEPA low flow sampling methods as described in *Low Stress (low flow) Purging and Sampling Procedures for the Collection of Groundwater Samples from Monitoring Wells* (USEPA, July 30 1996). Prior to sampling, depth to water measurements were taken using an electronic water level measuring tape. Water level measurements were utilized to evaluate groundwater flow direction and gradient. Wells were purged and representative samples collected at a low flow rate using a variable speed peristaltic pump. Care was taken to minimize turbulence in the water during low flow sampling. Groundwater quality instrumentation was calibrated according to the manufacturer's guidelines prior to use. The following groundwater quality parameters were measured by M&E in the field: pH, specific conductance (mS/cm), temperature (°C), oxidation-reduction potential (mV), turbidity (NTU), and dissolved oxygen (mg/L). Wells were purged at a low flow rate until these parameters stabilized, according to the USEPA method. In addition, an oil/water interface probe was used to determine if free-product [non-aqueous phase liquid (NAPL)] was present on the groundwater surface and its thickness, if present. Field parameters and observations were recorded on groundwater sampling forms, included in Appendix F. A number of QA/QC samples, including trip blank (TB) matrix spike, matrix spike duplicate (MS/MSD) and field duplicate (DUP) samples were for analysis.

Approximately 0.2 feet of light non-aqueous phase liquids (LNAPL) was noted in upgradient well MW-1, located near the northeastern corner of the site. No other observations or indications of NAPL were noted in the remaining wells sampled.

In addition to measuring groundwater elevations, two locations were utilized to measure the surface water elevation of Harbor Brook.

4.2.6 *Soil Sample Analysis*

The analytical parameters for the samples collected during the Phase II/III investigation were selected based upon evaluation of previous environmental investigations at the sites, former site operations, and the presence of identified constituents of concern (COCs). Soil samples were analyzed for one or more of the following:

- VOCs – EPA Method 8260-5035
- PAHs – EPA Method 8270
- Extractable Total Petroleum Hydrocarbons (ETPH) – Connecticut Method
- Asbestos
- Total CT DEP 15 Metals – EPA Method 6000/7000
- Total Cyanide – EPA Method 9010
- Synthetic Precipitation Leaching Procedure (SPLP) – EPA Method 1312, VOCs, PAHs, and metals

4.2.7 *Groundwater Sample Analysis*

Groundwater samples collected from each of the wells during the Phase II/III investigation were analyzed for one or more of the following:

- VOCs – EPA Method 8260
- Extractable Total Petroleum Hydrocarbons (ETPH) – Connecticut Method
- Total 8 RCRA Metals, plus antimony, beryllium, copper, nickel, thallium, vanadium and zinc – EPA Method 6010
- PAHs – EPA Method 8270
- Total Cyanide – EPA Method 9010

The eight VOC Plume Study wells were analyzed for VOCs (EPA Method 8260) only.

A sample of the LNAPL collected from MW-1 was analyzed to identify product type (TPH by Gas Chromatography Fingerprinting [EPA Method 8100

Modified]). The oil was extremely weathered and the analysis could not distinguish the product type.

Refer to Table 2 for additional information regarding laboratory analyses performed on soil and groundwater samples.

4.2.8 Waste Management

Monitoring well development and low flow purge water and decontamination liquids were containerized in a 55-gallon drum for subsequent characterization and potential off-site disposal. Soil cuttings were placed back into the soil borings as backfill.

4.3 QAPP REQUIREMENTS

4.3.1 Sample Handling and Custody Requirements

Sample collection, labeling, handling, and chain-of-custody (COC) requirements were specified in the QAPP. Typical requirements for analytical parameters to be utilized on the project with respect to the type of container, preservation method, and maximum holding time between collection and analysis were specified by the analytical method and the analytical laboratory, and were described in the QAPP and Sample Design.

4.3.2 QA/QC Samples

QA/QC samples were collected as part of the investigation to allow for the evaluation of the precision, accuracy, and usability of data collected during the field effort. Field QA/QC samples consisted of trip blanks and field duplicates. Internal laboratory QA/QC samples included method blanks, surrogate spikes, laboratory duplicates, and laboratory control spikes, and matrix spike/matrix spike duplicates.

4.3.3 Data Validation and Usability/Analytical Precision and Accuracy

A data validation review was completed in accordance with the *USEPA Region 1 Laboratory Data Validation Functional Guidelines for Evaluating Inorganic*

Analyses (ed. June 1988) and the *EPA Region 1 Laboratory Data Validation Functional Guidelines for Evaluating Organic Analyses (ed. December 1996)*. The review surpasses a Tier I data validation and includes the review of all QA/QC parameters encompassed by a Tier II validation effort except for an instrument calibration review. Data was evaluated for the following parameters:

- Sample holding times
- Field, trip, and laboratory blanks
- Field and laboratory duplicate results
- Matrix spike/matrix spike duplicate results
- Laboratory control spike recoveries (metals only)
- Surrogate spike recoveries (organics only)

5.0 SUBSURFACE MATERIALS

The majority of the material noted in the borings consists of sand, silt and gravel. In a number of locations, fill material (with urban characteristics) as well as petroleum contamination were noted. This section focuses on those locations where fill material and/or petroleum contamination were noted. Soil boring logs are presented in Appendix F.

On the east side of Building C in AOC-1, the material noted appears to be consistent with urban fill, including brick and ash to 7.5 feet below grade (fbg). A black oily sandy material was noted in AOC-1-SB-2 at an approximate depth range of 8-10 fbg. Groundwater was observed between at 7-10.5 fbg.

On the west bank of Harbor Brook in AOC-2 (SA-U), a former UST area, black silt with a strong petroleum odor was noted at approximately 5-7 fbg in AOC-2-SB-1.

On the west bank of Harbor Brook in AOC-5 (SA-W), urban fill consisting of slag and coal, was noted in AOC-5-SB-1 at approximately 3-4 fbg. Groundwater was noted at 9 fbg. In AOC-5-SB-2 (SA-V), also on the west bank of Harbor Brook, urban fill consisting

of brick, was noted to approximately 4 fbg. Two river bank samples (RB-01 and RB-02) collected in AOC-5 did not identify urban fill or indications of petroleum related contamination.

No urban fill or indications of petroleum related contamination were noted in the borings completed in AOC-11 and AOC-13.

No urban fill or indications of petroleum related contamination were noted in the borings completed in AOC-15. Asphalt was noted at approximately 2-4 fbg in AOC-15 MW-3 and AOC-15-SB-2.

Both soil borings AOC-17-SB-1 and AOC-17-SB-2, completed in AOC-17, detected petroleum related odors and oily sheens in the saturated zone. However, no petroleum related contamination was identified in the material above the water table in the unsaturated zone. Groundwater was noted at 8 fbg.

In the vicinity of the dust collectors, located east of Building A in AOC-19, urban fill, consisting of slag and asphalt was noted at approximately 4-6 fbg in AOC-19-SB-2. Groundwater was noted at 5.5 fbg.

Brick was noted at approximately 1-2 fbg in the boring (AOC-24 MW-1) completed in AOC-24.

Fill material consisting of brick, concrete and glass was noted at 0-4 fbg in the boring (AOC-SA-C-SB-1) completed in SA-C.

No urban fill or indications of petroleum related contamination were noted in the boring (AOC-SA-E-SB-1) completed in SA-E.

No urban fill or indications of petroleum related contamination were noted in the borings completed in SA-H or SA-O.

Field observations collected during the Phase II/III investigation suggest the presence of urban fill along portions of the west bank of Harbor Brook, located on the 77 Cooper Street property, and in several locations on the east side of the brook in several stabilization areas in the vicinity of the water tower and Building C. The extent of the urban fill in these areas has not been determined based on the information collected to date. In the vicinity of former Building D, urban fill and oily staining/odors were noted in the soil.

6.0 HYDROGEOLOGY

On May 10, 2006, and November 30, 2006, M&E collected depth to groundwater readings from 14 site wide monitoring wells and the eight VOC Plume Study wells. Utilizing a survey of site wells completed by Nafis and Young, the depth to water readings, the direction of groundwater flow was mapped and is presented on Figure 7. The direction of groundwater flow is generally to the southwest, towards Harbor Brook. Groundwater measurements and elevations are presented in Table 3.

7.0 ANALYTICAL RESULTS AND AOC STATUS SUMMARY

7.1 SOIL ANALYTICAL DATA

A soil sampling plan was developed to collect analytical data across the site and evaluate the environmental quality of the soil. The intent of the soil sampling plan was two fold: one, to investigate known stabilization area and assess if residual contamination remained after the stabilization efforts were completed in 2004-2005; and two, to further evaluate AOCs were either data gaps existed or where RSR exceedances were previously detected.

The soil data collected from the AOCs which were investigated during M&E's Phase II/III are summarized below. Soil samples were collected at the surface (0-0.5' below grade), as well as from geoprobe soil borings at deeper depths. A tabulated summary of soil data collected during M&E's Phase II/III investigation is presented in Table 4. A summary of RSR exceedances in soil is presented in Table 5, which includes data from previous investigations. The analytical laboratory data reports from this investigation are included in Appendix G.

AOC-1 – 2-20,000 gallon USTs (on the east side of Building C)

M&E collected a total of seven soil samples from three soil borings in this AOC.

- The VOCs tetrachlorothylene (PCE) and trichloroethylene (TCE) were detected in one sample at six feet below grade (fbg), but below the RDEC and the GB PMC (utilizing GWPC X 10).
- PAHs were detected in exceedance of the RDEC and I/C DEC in three samples, collected from three borings at 0-2, 2-4 and 4-6 fbg, but below the GB PMC (utilizing GWPC X 10).
- ETPH was detected in exceedance of the RDEC in one sample collected from one boring at 0-2 fbg, and above the I/C DEC in another sample collected from 8-10 fbg.
- Total lead was detected in exceedance of the GB PMC X 20 (screening method) in one sample, collected from one boring at 0-2 fbg. Since the

potential source of contamination was a UST, the only metal the soil was analyzed for was total lead.

No other exceedances, (total or SPLP) were detected in any of the samples collected in AOC-1. GZA reportedly pumped out the contents of the USTs (GZA, June 2000).

AOC-2 – 1-1,000 gallon UST (southeast side of Building A)

M&E collected three soil samples; one surficial soil sample and two samples from one boring in this AOC.

- The VOCs n-butylbenzene and p-isopropyltoluene were detected one sample (6-8 fbg), but below the RDEC and the GB PMC (utilizing GWPC X 10).
- PAHs were detected in exceedance of the RDEC and I/C DEC in two samples collected from 0-0.5 and 5.5-6 fbg. PAHs were detected above the GB PMC in one sample collected 5.5-6 fbg.
- ETPH was detected in exceedance of the RDEC in one sample collected at 0.0-5 fbg, and in exceedance of the RDEC, I/C DEC and GB PMC in another sample, collected 6-8 fbg.
- Total lead was detected in exceedance of the RDEC and GB PMC X 20 (screening method) in one sample collected 0-0.5 fbg. Since the potential source of contamination was a UST, other than total lead, no analyses were performed for other metals (total or SPLP).

No other exceedances, (total or SPLP) were detected in any of the samples collected in AOC-2. GZA reportedly pumped out the contents of the UST.

AOC-3 – 1-1,000 gallon UST (along Harbor Brook, north of Building B)

M&E collected two soil samples from one soil boring in this AOC.

- Total chromium, lead and vanadium were detected in exceedance of the GB PMC X 20 (screening method) in both samples, collected 2-4 and 6-8 fbg. No other exceedances were detected in either sample.
- No other contaminants were detected above the applicable RSR criteria.

The UST was reportedly removed in 2005.

AOC-5 – 2 USTs of unknown size (areas along southeast side of Building A)

M&E collected seven soil samples in this AOC; four samples from two soil borings, one surficial sample and two river bank samples.

- PAHs were detected in exceedance of the GB PMC, RDEC and I/C DEC in one 2-4 fbg soil boring sample and the surficial sample. SPLP-PAHs performed on one 2-4 fbg sample did not detected PAHs in exceedance of the GB PMC (utilizing GWPC X 10).
- ETPH was detected in exceedance of the RDEC in the surficial sample, and the 2-4 fbg and 9-11 fbg samples collected from the same boring. No other exceedances were noted from any of the samples, including the river bank samples.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method). However, a SPLP-Metals analysis performed on one sample did not identify any GB PMC exceedances.

No comprehensive soil or groundwater sampling was reported to have been performed in this AOC prior to M&E's Phase II/III ESA.

AOC-10 – 1-150,000 gallon (water tower) AST (south of Building C)

M&E collected two surficial soil samples in this AOC. One of the surface samples was collected as a QA/QC (MS/MSD) sample.

- One PAH, benzo(b)fluoranthene, was detected in exceedance of the RDEC and GB PMC in one of the two surficial samples, collected 0-0.5 fbg.

- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in both samples. A SPLP-Metals analysis performed on one sample did not detect any GB PMC exceedances.

AOC-11 – 11-55-gallon drums (stored in this area - southwestern portion of property)

M&E collected seven soil samples (two surficial samples and three soil boring samples) in this AOC. Of the seven samples, one was collected as a duplicate and a matrix spike/matrix spike duplicate sample. Two soil boring samples were collected from one boring, which was completed as a monitoring well.

- ETPH was detected in exceedance of the RDEC in both surficial samples.
- Total lead was detected in exceedance of the RDEC in one soil boring sample, collected 2-4 fbg.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in all samples. However, SPLP-Metals performed on four samples did not detect any GB PMC exceedances.
- No other exceedances were identified.

Weston sampled the drums in 1998 and that the drums were removed (Weston, 1997). No drums were observed in this area by M&E.

AOC-13 – Drywell (southeast of Building B)

M&E collected one surficial sample and two soil boring samples from one soil boring in this AOC.

- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in all samples. SPLP-Metals performed on two samples did not detect any GB PMC exceedances. VOCs were not detected above the laboratory detection limits in any of the samples.
- No other exceedances were identified.

In 1998, Weston conducted a soil gas survey in the area surrounding and downgradient of the drywell. Only low concentrations (< RSR criteria) of aromatic (benzene, ethyl benzene, toluene and xylene) VOCs were detected. No halogenated (TCE, PCE) VOCs were detected.

Groundwater sampling also completed by Weston (1998) downgradient of the drywell detected only the halogenated VOCs, TCE and PCE, and no aromatic VOCs. TCE was detected below the 1996 GWVC, but if compared to CTDEP's proposed (2003) standards, the detected TCE concentration exceeds the residential and industrial/commercial GWVC. However, given the absence of aromatic VOCs in the groundwater, and conversely, the absence of halogenated VOCs in the soil gas, this may suggest that the TCE and PCE in the groundwater are associated with another, upgradient source, other than the drywell, possible in AOC-17. Refer to Appendix E for additional information.

AOC-15 (AOC-15A, 15B and 15C) – Debris Piles (east of Harbor Brook and southwest corner of property – three separate locations)

AOC-15A

M&E collected one surficial soil sample and one soil boring sample from this AOC.

- No RSR exceedances were noted in this AOC.

AOC-15B

M&E collected five surficial samples and five soil boring samples in this AOC. Two of the surface samples were collected as QA/QC (DUP and MS/MSD) samples. The five soil boring samples were collected from four individual borings, one of which was completed as a monitoring well.

- A number of PAHs were detected in exceedance of the RDEC in three surficial samples (0-0.5 fbg) and two soil boring samples collected 2-4 fbg from two individual soil borings. PAHs were also detected in exceedance of the I/C DEC in one surficial sample and one soil boring sample. Mass

concentrations of several PAHs exceed the GWPC. However, SPLP-PAH analysis was performed on the sample which exhibited the highest mass concentrations of PAHs, and did not detect any GB PMC exceedances (utilizing GWPC X 10). GB PMC exceedances for PAHs only exist where mass - PAH analyses were performed.

- ETPH was detected in exceedance of the RDEC in one soil boring sample collected 2-4 fbg.
- Total copper was detected in exceedance of the RDEC in one surficial sample.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in all surficial and soil boring samples. SPLP-Metals performed on five samples did not detect any GB PMC exceedances.

AOC-15C

This AOC was investigated in conjunction with a portion of AOC-11.

- ETPH was detected in exceedance of the RDEC in one AOC-11 surficial soil sample collected 0-0.5 fbg, and one soil boring sample collected 2-4 fbg.
- Total lead was detected in exceedance of the RDEC in one AOC-11 soil boring sample collected 2-4 fbg.

No other exceedances were noted. The debris piles were removed in 2005 (AEI, February 2006). Previous data indicates TPH in exceedance of the RDEC at 2 fbg.

AOC-17 – Contaminated soil (northeast corner of property, in vicinity of former Building D)

M&E collected two surficial samples and five soil boring samples in this AOC. The five soil boring samples were collected from two borings.

- The VOC, PCE, was detected in exceedance of the RDEC in two samples collected for the same soil boring; 14-16' and 18-20' below grade, and

below the water table. However, since these samples were collected below the water table, the PMC criteria do not apply. Furthermore, the DEC only apply to soils within 15' of the ground surface. The VOC, TCE, was detected in exceedance of the GB PMC in the same boring and at the same depths. No SPLP-VOC analyses were performed.

- Total arsenic and total vanadium were detected in exceedance of the RDEC in one surficial sample; 0-0.5' below grade. Total arsenic, and SPLP lead and antimony were also detected in the same sample in exceedance of the I/C DEC and GB PMC, respectively.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in both surficial and one soil boring sample. Two samples were analyzed for SPLP-Metals. However, no exceedances of the GB PMC were noted. No other exceedances were noted.

Weston (1998) states that approximately 5,600 square feet of chlorinated VOC contaminated soil (to 15 feet below grade) exists in this area. Weston (1998) also performed a soil gas survey and collected soil and groundwater samples in this AOC. TCE and PCE were detected above the soil vapor volatilization criteria (SVVC) in a number of soil vapor samples collected in the vicinity of former Building D. Refer to Appendix E for additional information.

AOC-19 – Contaminated Soil (under dust piles, east of Building A)

M&E collected six soil samples from three borings in this AOC. One of the borings was completed as a monitoring well.

- ETPH was detected in exceedance of the RDEC, I/C DEC and the GB PMC in one sample collected 7-9 fbg.
- A number of PAHs were detected in exceedance of the RDEC in two samples, both collected 2-4 fbg. One SPLP-PAH analysis did not detect any GB PMC exceedances (utilizing GWPC X 10).
- Total copper was detected in exceedance of the RDEC in one sample collected 2-4 fbg.

- Total and SPLP lead was detected in exceedance of both the RDEC and the GB PMC from one sample collected 2-4 fbg.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in all soil boring samples. Three of the four samples analyzed for SPLP-Metals did not detect any GB PMC exceedances.

No other exceedances were identified. Previous data indicates copper was detected above the RDEC at 2-2.5 fbg. Weston (1998) stated that approximately 1,600 square feet of green stained soil, contaminated with metals from overlying dust piles was removed. It is also stated that soil sampling was performed by Weston(1998), GZA (2000) and by the CT DEP in 2005.

Located in AOC-19 is SA-R. During 2004-2005, the CTDEP and AEI removed and disposed of metal-impacted surface soils to approximately two feet bgs beneath/adjacent to the dust collectors in two areas on the east side of Harbor Brook. The excavation was backfilled to grade with two-inch processed cover of stone.

AOC-24 – Possible UST (west side of Building D)

M&E collected one surficial and two soil boring samples in this AOC. The soil boring samples were collected from one boring that was completed as a monitoring well.

- The VOC TCE was detected in exceedance of the GB PMC in one soil sample collected 2-4 fbg.
- A number of PAHs were detected in exceedance of the RDEC in two samples collected 0-0.5 fbg and 2-4 fbg. One PAH was detected above the I/C DEC in the surficial 0-0.5 fbg sample and one soil boring sample collected 2-4 fbg. SPLP-PAH analyses performed on one surficial sample and one soil boring sample did not detect any GB PMC exceedances (utilizing GWPC X 10).

Weston (1998) states that ICF Kaiser (1990) completed an UST Sampling Report and identified a possible UST on the west side of former Building D. No additional information regarding the UST was presented in the Weston report and the ICF Kaiser report was unavailable for review.

AOC-25 – Groundwater Contamination (eastern property boundary)

Chlorinated VOC contamination in exceedance of the SWPC, R VC and I/C VC has previously been identified in the groundwater at the northern portion of the 104 Butler Street parcel, near the eastern boundary with residential properties on Cherry Street. Approximately ___" of light non-aqueous phase liquid (LNAPL) was identified in MW-1, near the end of Cherry Street.

Eight monitoring wells were installed to evaluate the extent of VOCs in groundwater near the eastern property boundary. Soil samples were screened in the field while installing the eight VOC Plume Study wells. In two locations (MW-100 and MW-107), field screening indicated VOC contamination at the water table. Soil samples from these locations were submitted for VOC analysis. No RSR exceedances were noted. The source of the LNAPL in MW-1, and the source of the (dissolved) groundwater contamination near the eastern property boundary have not been determined, but may be situated on-site in the vicinity of the former Building D. M&E's Phase II/III ESA did not investigate potential off-site sources.

Refer to Section 7.2 for a more detailed discussed regarding AOC-25 groundwater contamination.

AOC-30 – Louie's Auto Shop (east of site at 55 Cooper Street)

M&E collected one surficial and two soil boring samples just west of this AOC. A QA/QC duplicate and a MS/MSD sample were collected with the surfical soil sample. The two soil boring samples were collected from one boring, which was completed as a monitoring well. No exceedances of the RSR criteria were identified.

AOC-SA-C – Stabilization Area C Asphalt Piles Removed (east of Stabilization Area B)

M&E collected one surficial soil sample and one soil boring sample in this AOC.

- Total antimony was detected in exceedance of the RDEC in the surficial 0-0.5 fbg sample.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in both samples.
- SPLP lead and antimony were detected in exceedance of the GB PMC in the surficial 0-0.5 fbg sample. The lead concentration exceeds 5.0 mg/l.

Soil is characterized as "hazardous" under RCRA using the TCLP analysis, which is a more aggressive leaching procedure than the SPLP method. Therefore, it is likely that if these materials were tested by TCLP, the result would be greater than the 5.0 mg/l concentration, and thus could be considered a hazardous material for disposal purposes. However, additional soil sampling in this area may suggest that the 5.0 mg/l is localized, and upon excavation, stockpiling and composite sampling, the material may not be considered hazardous. No other SPLP-metals were detected at concentrations exceeding the GB PMC.

AOC-SA-E – Stabilization Area E Metal Impacted Soil Removed (underneath former elevated heat transfer line, west of former smokestack)

M&E collected two soil samples from one soil boring in this AOC.

- No metals were detected at concentrations exceeding the RDEC. A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in both samples collected 0-2 fbg and 2-4 fbg. No other exceedances were identified.

AOC-SA-H – Stabilization Area H Metal-Impacted Soil Removed (adjacent to and north of 10,000 gallon waste water UST)

M&E collected two soil samples from one soil boring in this AOC.

- Total lead and vanadium were detected in exceedance of the GB PMC X 20 (screening method) in both samples collected 0-2 fbg and 2-4 fbg. No other exceedances were identified.

Previous data (AEI, 2006) indicates ETPH was detected in the soil at concentrations exceeding the RDEC, I/C DEC and the GB PMC; total nickel and zinc were detected in the soil above the RDEC; and total copper was detected in the soil above the RDEC and I/C DEC. According to AEI (2006), metal-impacted soil in this area was removed to one foot below grade.

AOC-SA-M – Stabilization Area M Impacted Soil and Fire Debris Pile Removed (AOC-15) (in location of former Building D)

M&E collected three soil samples from two soil borings in this AOC.

- Several PAHs were detected in exceedance of the RDEC and I/C DEC in one sample collected 0-2 fbg. SPLP-PAH analysis performed on the 0-2 fbg sample did not detect any GB PMC exceedances (utilizing GWPC X 10).
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in each of the three samples collected 0-1 fbg, 0-2 fbg and 2-4 fbg. SPLP- Metals analysis performed on the 0-2 fbg sample did not detect any GB PMC exceedances (utilizing GWPC X 10).

No other exceedances were identified.

AOC-SA-N – Stabilization Area N Building C Asbestos and Lead Abatement)

M&E collected two surficial soil samples in this AOC.

- Total lead was detected in exceedance of the GB PMC X 20 (screening method) in both surficial samples collected 0-0.5 fbg. SPLP-lead analysis performed on one sample did not detect any leachable lead in exceedance of the GB PMC.

- Trace amounts of the asbestos minerals, chrysotile and anosite were detected in one sample collected 0-0.5 fbg. Asbestos was not detected above the 1% laboratory reporting limit. No other exceedances were detected.

AEI (2006) states that during stabilization activities in 2004-2005, lead based paint that had fallen or was flaking and at risk of falling off Building C was removed and disposed of. Additionally friable asbestos insulation that had fallen or was at risk of falling from Building C, was removed and disposed during the 2004-2005 SA activities. However, asbestos still remains on boilers in Building C.

AOC-SA-O – Stabilization Area O Impacted-Soil and Debris Pile Removed (southeast of footbridge)

M&E collected two soil samples from one soil boring in this AOC.

- ETPH was detected in exceedance of the RDEC in one sample collected 0-2' below grade.
- A number of total metals were detected in exceedance of the GB PMC X 20 (screening method) in both samples collected 0-2 fbg and 2-4 fbg. SPLP-Metals analyses performed on both samples did not detected any GB PMC exceedances. No other exceedances were identified.

AEI (2006) state that during stabilization activities conducted during the 2004-2005 period, the visually impacted soil and piled debris were removed and disposed of off site.

AOC-SA-P – Stabilization Area P Asbestos Roof Removed from UST Bunker (adjacent to Building C)

M&E collected two surficial soil samples in this AOC. No exceedances were detected. Asbestos was not detected in either sample.

AEI (2006) stated that during stabilization activities conducted with CTDEP during the 2004-2005 period, the asbestos roof was removed and disposed of off-site.

AOC-SA-T – Stabilization Area T Building A Second and Third Floors Asbestos Removed

M&E collected three surficial soil samples near the building to evaluate possible releases of lead and asbestos from the building.

- Total lead was detected in exceedance of the RDEC in one sample collected 0-0.5 fbg.
- Total lead was detected in exceedance of the GB PMC X 20 (screening method) in all three surficial samples. SPLP-lead performed on one sample did not detect a GB PMC exceedance.
- Trace amounts of the asbestos mineral chrysotile was detected in one sample collected 0-0.5' below grade. Asbestos was not detected above the 1% laboratory reporting limit. No other exceedances were detected.

AEI (2006) stated that during stabilization activities conducted during the 2004-2005 period, asbestos from the second and third floors of Building A was removed and disposed of off-site.

7.2 GROUNDWATER ANALYTICAL DATA

A summary of groundwater data collected during M&E's Phase II/III investigation is presented in Table 6. A summary of RSR exceedances in groundwater is presented in Table 7, which includes data from previous investigations. Analytical laboratory data reports are included in Appendix G (Volume II).

M&E collected groundwater samples from 13 site-wide monitoring wells and from the eight wells installed near the eastern property boundary to evaluate VOC concentrations adjacent to the residential properties along Cherry Street.

In response to M&E's Phase II/III groundwater findings along the eastern property boundary, the CTDEP assisted in evaluating soil vapor and groundwater adjacent to the northern most residential dwellings on Cherry Street. The CTDEP collected three groundwater samples and two soil gas samples. Information provided by CTDEP documenting CTDEP's investigation is presented in Appendix E.

RSR exceedances were detected in the following AOCs.

AOC-3 – 1-10,000 gallon UST (MW-3 along harbor brook, north of Building B)

- Tetrachlorothylene (PCE) was detected in exceedance of the SWPC.
- Trichloroethylene (TCE) was detected in exceedance of the R VC and I/C VC.
- Vinyl chloride was detected in exceedance of the R VC.
- These chlorinated VOCs appear to be associated with the chlorinated VOCs found in the northeastern portion of the site in the area of former Building D/AOC 17.

AOC-11 – 11 55 gallon drums (MW-1)

- Arsenic was detected in exceedances of the SWPC.

AOC-17 – Contaminated soil (MW-1, MW-11 and MW-12)

- PCE was detected in exceedance of the SWPC.
- TCE was detected in exceedance of the R VC.
- Vinyl chloride was detected in exceedance of the R VC and I/C VC
- Zinc was detected in exceedance of the SWPC.

AOC-24 – Possible UST (MW-1)

- TCE was detected in exceedance of R VC.

AOC-25 – VOC Plume Study - Eastern Property Boundary (MW-100, 101, 102, 103, 104, 105, 106, 107 and CTDEP GP-1, 1A, 2, 3 and 3A)

Of the eight wells installed by M&E, VOC exceedances were detected in the three northern most wells (MW-100, 101, and 102). Additionally, VOCs were detected below the RSR criteria in four of the five remaining wells.

- PCE was detected in exceedance of the SWPC and R VC.

- TCE was detected in exceedance of the R VC, and I/C VC.
- Vinyl Chloride was detected in exceedance of the R VC and I/C VC.
- Cis-1,1-dichloroethylene was detected in exceedance of the R VC.

In addition to M&E's wells and groundwater samples the CTDEP collected soil vapor and groundwater samples to evaluate VOC concentrations adjacent to residential structures. The following RSR exceedances were detected.

- TCE and PCE were detected in exceedance of the R VC and I/C VC in GP1. PCE was also detected above the SWPC in GP1

No other exceedances were noted in any of the other groundwater samples and no vapor samples exceed the VC.

7.3 DATA QUALITY CONTROL/QUALITY ASSURANCE

A summary of data validation qualifications is presented in Table 8. Some data was qualified as presented in Table 8 and shown in the soil and groundwater data tables; however the data is usable for evaluating remediation requirements.

8.0 CONCEPTUAL SITE MODEL

As described in Section 2.0, the site has historically been used for commercial and industrial activities. Based on the history of the site and information from previous investigations, a Conceptual Site Model (CSM) has been constructed to better evaluate the environmental conditions on the site.

The development of a conceptual site model (CSM) is an evaluation process used to develop a comprehensive understanding of environmental site conditions. The CSM is typically revised as additional pertinent information is obtained and is therefore an iterative process. Ultimately, the resultant CSM provides a current comprehensive status of environmental conditions at a site. Typical issues evaluated include potential historical and present site operations/activities, areas of concern (AOCs), constituents of concern, geology, hydrogeology and hydrology, subsurface structures, degree and extent of contaminants within each media affected, and determination of potential receptors of the identified impacts. The CSM process integrates these issues to develop the comprehensive environmental site conditions. The CSM for the site is summarized in Table 9. Table 9 presents each site AOC, confirmed constituents of concern (COCs) exceeding RSR criteria (if any) in each AOC, and general recommendations for further investigations and/or remediation. Table 9 also includes data and information from previous investigations. This table was developed to facilitate the tracking of activities in each AOC.

8.1 Current Site Understanding

This section presents a discussion regarding the current understanding of the site with respect to site AOCs, COCs, Stabilization Areas (SAs) and RSR requirements. Based on our understanding of the site and a review of the data, a number of AOCs and SAs overlap and therefore are addressed together. Using the CSM, individual AOCs and SAs have been separated into the following four categories;

1) AOCs where RSR exceedances (soil and groundwater) have been identified and additional investigations and/or remediation may be approperiate;
2) AOCs where no RSR exceedances have been detected, and/or no additional investigations/remediation are recommended, and/or the area can be closed out with existing data;
3) AOCs which were not addresses as part of the Phase II/III investigation;
4) AOCs which may be addressed after demolition or during flood control evaluation.

In evaluating the four categories, with the focus on the areas where additional investigations and or remediation may be appropriate, please refer to the CSM (Table 9) and figures 4, 5 and 6 for additional information. The boundary between 77 Cooper Street and 104 Butler Street is depicted on the City of Meriden Economic Development Office site map, included in Appendix B. Figure 4, 5 and 6 present map views and RSR exceedances in the soil at 0-2', 2-4' and greater than 4' below land surface, respectively. These figures will help in planning remediation activities. Additionally, figure 7 presents RSR exceedances in site groundwater.

AOC RSR Exceedances in Soil - Additional Investigation and/or Remediation

A total of 33 AOCs/SAs have been identified as potentially requiring additional investigations and/or remediation, and have been combined into the following 11 main portions of the site. A number of the AOCs/SAs have been combined due to physical proximity, and to maximize future investigation/remediation efforts. In other words, investigation/remediation tasks can be utilized to address more than one AOC.

1) AOC-*1, (AOC-18, SA-K, SA-L, and SA-M)* – ETPH and PAH exceedances were noted in the soil adjacent to the 20,000-gallon USTs. This area is adjacent to Building C (Boiler Building), the COCs have been identified and remediation will be required. The full extent of the soil contamination has not

been completely delineated. Figure 4 shows the estimated extent of contamination requiring remediation in the top 2 feet of soil based on existing data. The estimated extents of contamination requiring remediation in deeper soils are shown on Figures 5 and 6. Depth to groundwater in this area is approximately 12' bgs.

Additional investigations would help to refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and the demolition phase of the project. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste or potentially capped on site.

- PAHs and ETPH > RDEC and I/C DEC at 0-2' bgs;
- PAHs > RDEC and I/C DEC at 2-4' bgs and 4-6' bgs;
- ETPH > RDEC and I/C DEC at 8-10' bgs.

2) AOC-2 *(AOC-5, SA-U, SA-V and SA-W)* – ETPH and PAHs exceedances were noted in the soil. This area is located along the western bank of Harbor Brook on the 77 Cooper Street parcel and near the southern extent of the brook. This area has been investigated, the COCs have been identified, and remediation will be required. The extent of the soil contamination to the south however, has not been delineated. The estimated extent of soil requiring remediation by depth are shown on Figures 4, 5 and 6.

Additional investigations would help to refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and the demolition phase of the project. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of

as non-hazardous, Connecticut Regulated Waste or potentially capped on site.

- PAHs and ETPH > RDEC and I/C DEC at 0-0.5' bgs; PAHs (mass) > GB PMC at 0-0.5'bgs;
- PAHs and ETPH > RDEC and I/C DEC at 2-4'; PAHs (mass) > GB PMC;
- PAHs >RDEC and I/C DEC at 5.5-6' bgs; ETPH > RDEC at 6-8' bgs and 9-11' bgs, and the I/C DEC at 6-8' bgs.

3) *AOC-10* – PAH RSR exceedances in the vicinity of the water tower were identified in shallow soil. This area has been investigated, the COCs have been identified, and remediation will be required. The extent of the soil contamination however, has not been completely delineated. The estimated extent of soil requiring remediation in this area is shown on Figure 4.

   Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and/or the demolition phase of the project.

   - PAHs (mass) > RDEC and GB PMC at 0-0.5'bgs.

4) *AOC-11 (AOC-16, SA-T and AOC-15C – debris pile)* – ETPH and total lead RSR exceedances were identified in this area, southwest side of Building A, on the 77 Cooper Street parcel. This area has been investigated, the COCs have been identified, and remediation will be required. Additionally, arsenic was detected in exceedance of the RSR criteria in the groundwater.

   Additional investigations would help to refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and the demolition phase of the project.

Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste.

- ETPH > RDEC at 0-0.5' bgs;
- Total Lead > RDEC at 0-5' and 2-4' bgs.

5) *AOC-15B (SA-B, SA-C, SA-F, SA-I)* – This area includes a large portion of the site, east of Harbor Brook, near the eastern property boundary. ETPH, PAHs and copper RSR exceedances were detected in this area. This area has been investigated, the COCs have been identified, and additional remediation will be required. The extent of the soil contamination however, has not been fully delineated.

   Lead was detected in the soil in SA-C at a concentration which, if detected at similar concentrations after being excavated and staged for disposal, could potentially be considered a hazardous waste.

   Additional investigations would help to refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation. Contingent upon re-development plans and incorporated flood management components, this area (with the possible exception of the backfill material in SA-C) may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste.

   - Total copper and antimony > RDEC and SPLP lead and antimony > GB PMC at 0-0.5' bgs;
   - PAHs (mass) > RDEC, I/C DEC and GBPMC at 0-0.5' and 2-4' bgs;
   - ETPH > RDEC at 2-4' bgs

6) *AOC-17* – This AOC is located at the end of Cherry Street on the 104 Butler Street parcel. Antimony, arsenic, lead and vanadium RSR exceedances were detected. Additionally, VOCs, (LNAPL in MW-1) and zinc RSR exceedances were detected in the groundwater. This area has been investigated, the COCs have been identified, and remediation will be required. The extent of the soil requiring remediation contamination however, has not been fully delineated. The presence of LNAPL and halogenated VOCs in the groundwater suggest an on-going source of contamination in the area.

   Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste or potentially capped on site.

   - Total arsenic >RDEC and I/C DEC at 0-0.5' bgs;
   - Total vanadium >RDEC at 0-0.5' bgs;
   - SPLP lead and antimony > GB PMC at 0-0.5' bgs;
   - PCE > RDEC at 14-16' and 18-20' bgs (in water table and GB PMC not directly applicable; greater than 15' bgs DEC is not applicable).

7) *AOC-19 (AOC-23, AOC-6, AOC-14, SA-R, SA-S)* – ETPH, PAHs, lead and copper exceedances were noted in the soil. This area is located on the east side of Building A along the western bank of Harbor Brook. This area has been investigated, the COCs have been identified, and additional remediation will be required. The extent of the soil contamination however, has not been fully delineated.

Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and the demolition phase of the project. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste or potentially capped on site.

The stained soil in AOC-23 was removed during CTDEP stabilization activities.

- Total arsenic > RDEC and I/C DEC at 0-2' bgs;
- Total copper > RDEC at 2-4' bgs;
- Total lead > RDEC at 2-5.5' bgs;
- SPLP lead > GBPMC at 2-4' bgs;
- PAHs (mass) > RDEC, I/C DEC and GBPMC at 2-4' bgs, and > RDEC at 4-5.5' bgs;
- ETPH > RDEC and I/C DEC at 4-5.5' and 7-9' bgs.

8) *AOC-24* – This AOC is located north of Building C on the 104 Butler Street parcel. PAHs and TCE RSR exceedances were noted in the soil. This area has been investigated, the COCs have been identified, and remediation will be required. The extent of the soil contamination however, has not been fully delineated.

Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and/or the demolition phase of the project. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of

as non-hazardous, Connecticut Regulated Waste or potentially capped on site.

- PAHs > RDEC and I/C DEC at 0-0.5' and 2-4' bgs;
- TCE > GB PMC at 2-4' bgs

9) *AOC-31 (Site Wide Surficial Soils)* – This AOC was investigated in conjunction with other AOCs where RSR exceedances have been identified through surficial soil sampling. Without additional investigations where data gaps exist, it is unknown if surficial soils contaminated with COCs above the RSR criteria are present in other areas.

10) *AOC SA-H* - This AOC is located east of Harbor Brook just northeast of Building B. Previous investigations identified ETPH RSR exceedances. This area has been investigated, the COCs have been identified, and remediation will be required. The extent of the soil contamination however, has not been delineated.

Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation and/or the demolition phase of the project. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste or potentially capped on-site.

- ETPH > RDEC, I/C DEC and GBPMC (pre-existing data, sample depth undetermined)

11) *AOC*- SA-O – This area is located just southeast of the northern foot bridge on the 104 Butler Street parcel. ETPH RSR exceedances were noted. This

area has been investigated, the COCs have been identified, and additional remediation will be required. The extent of the soil contamination however, has not been fully delineated. Since the area was "stabilized" by CTDEP by removing a localized debris pile, the limits of the additional remediation are not expected to be extensive or deep.

Additional investigations would help refine remediation requirements. It may be practical to re-assess the need for additional investigations during the flood control evaluation. Contingent upon re-development plans and incorporated flood management components, this area may be excavated and excess material disposed of as non-hazardous, Connecticut Regulated Waste or potentially capped on-site.

- ETPH > RDEC at 0-2' bgs

AOC RSR Exceedances in Groundwater – Additional Investigations and/or Remediation

RSR exceedances were detected in six AOCs/SAs, which may additional investigations and/or remediation. The six AOCs/SAs have been combined into the following five main areas of interest. Refer to figure 7 for additional information.

1) *AOC-3 (SA-G)* – This area is located northeast of Building B on the 77 Cooper Street parcel. TCE and vinyl chloride RSR exceedances were detected in the groundwater. The area has been characterized and the COCs have been identified.

   - *TCE > R VC, I/C VC and SWPC*
   - *VC > R VC*

2) *AOC-11* – This AOC is located on the southwest side of Building A, on the 77 Cooper Street parcel. Concentrations of arsenic were detected at concentrations exceeding SWPC in the groundwater. The COCs have been identified but the source and extent are unknown at this time.

   - *Arsenic > SWPC*

3) *AOC-17* – This AOC is located at the end of Cherry Street on the 104 Butler Street parcel and is associated with the AOC-25 (Eastern Property Boundary) contamination. The COCs are similar to those present in AOC-25. Additional investigations may be warranted to refine the CSM and identify the source if active remediation is to be conducted. CTDEP conducted off-site sampling in the vicinity of homes on the northern end of Cherry Street. Very low detections of chlorinated VOCs in samples from GP-3 indicate the edge of the plume is in the vicinity of this location.

   - *TCE > R VC, I/C VC*
   - *VC > R VC*
   - *PCE > R VC, I/C VC and SWPC*
   - *Zinc > SWPC*

4) *AOC-24* – This AOC is located north of Building C and near the northern property boundary. TCE RSR exceedances were identified in the groundwater. The source of the contamination has not been determined, but it may be associated with the chlorinated solvents in AOC 17. The building was demolished and soils have been reworked making the determination of the source difficult.

   - *TCE > R VC*

5) *AOC*-25 (Eastern Property Boundary) – This area is located in the vicinity of the eastern property boundary, and may be associated with the groundwater contamination in AOC-17 and/or AOC-24. The COCs have been identified, but the boundary of the plume has not been completely delineated.

- *TCE > R VC and I/C VC*
- *CDCE > R VC*
- *PCE > R VC and SWPC*
- *VC > R VC and I/C VC*

It appears that a VOC groundwater plume extends onto several properties located at the end of Cherry Street, on the west side of the road. VOC RSR exceedances were noted in the groundwater and it appears that VOC RSR exceedances exist at the plume boundary which appears to straddle a portion of the northwestern most Cherry Street residential property. It also appears that the source of the groundwater contamination is an upgradient source either, in the vicinity of the former Building D area. However, an off-site source further to the north or northeast cannot be ruled out.

The CT DEP was notified of the condition with regards to vapors potentially impacting off-site residential properties. In association with the Connecticut Department of Public Health (DPH), the CT DEP investigated the area further, collecting vapor and groundwater data to assess current environmental conditions on the residential properties. Groundwater RSR exceedances were detected but no exceedances were detected in the vapors.

With the exception of AOC-3 and 11, groundwater contamination in exceedance of the RSR criteria appears to be located predominately on the 104 Butler Street parcel. Chlorinated VOCs are the predominate COC in this area. Currently, a definitive on-site source has not been identified, but potential

on-site sources may include improper waste handling/disposal associated with historic activities at former Building D. Historic activities include gun manufacturing, machining, foundry, and pattern shop activities and operations. VOC contaminated soil and soil gas was previously identified in this area and also could represent a potential on-site contaminant source.

Weston (1998) detected chlorinated VOC RSR exceedances in the soil vapor in the vicinity of Former Building D which, combined with other data, suggest a source in the Building D area. However, off-site sources cannot be ruled out. Potential off-site sources of the chlorinated VOCs may include dry cleaners and other businesses, whose operations utilize and released chlorinated VOCs.

Groundwater has not been investigated beneath the factory on the 77 Cooper Street parcel.

AOCs – Areas Addressed during M&E's Phase II/III - No Additional Investigations and/or Remediation Recommended

The following AOCs/SAs were investigated during M&E's Phase II/III and no additional investigations and/or remediation are recommended.

AOC-13, AOC-30, SA-E, SA-N, and SA-P

Areas Not Addressed in this Study

The following AOCs/SAs were not addressed in this Phase II/III investigation. Based upon the information, or the lack of information presented in previous investigations, these AOC/SAs have been categorized into two groups; those AOCs/SAs where additional investigations and/or remediation are not recommended, and those AOCs/SAs where additional investigations/investigations are recommended.

AOC-4 (SA-J), AOC-7, AOC-8, AOC-14, AOC-16, AOC-18, AOC-22, AOC-33 and SA-Q

- *AOC-4 (SA-J), AOC-7, AOC-8, AOC-22 and SA-Q* were not investigated during the Phase II/III but based on the data, no additional investigations and/or remediation are recommended.
- *AOC-16* (debris pile southwest of building A) and *AOC-26* (surface water and sediments) were not investigated during the Phase II/III but can be combined with AOC-11 and AOC-12 respectively, and additional investigations and/or remediation could be combined with demolition and flood control activities. *AOC-14, AOC-18* and *AOC-33* (soil and groundwater beneath building A) were also not investigated. Once Building A has been demolished and the debris removed, AOC-33 (soil and groundwater beneath factory) and AOC-14 (dust piles) can be investigated and/or remediated.

AOCs – Areas Not Investigated by M&E in this Study - Address during Pre-Demolition and Demolition Phase

AOC-9 (ASTs in building A), AOC-20 (wood flooring –building A), AOC-21 (stained concrete – building A), AOC-26 (surface water & sediments) (include with AOC-12 [discharge pipes to brook]), AOC-27 (asbestos materials), AOC-28 (lead paint), AOC-29 (light ballasts), AOC-32 (transformers in building), and SA-D (asbestos impacted soil under heat transfer lines).

- *AOC-9, AOC-20, AOC-21, AOC-27, AOC-28, AOC-29, AOC-32, and SA-D* were not investigated during the Phase II/III. It is recommended that these areas be addressed during pre-demolition and demolition activities.

9.0 REDEVELOPMENT PLANS

Redevelopment plans have not been finalized at this time, but it is anticipated that future site redevelopment plans will incorporate a flood control component, and possibly open space and commercial/industrial properties.

10.0 REMEDIATION REQUIREMENTS AND PHASE III CONCLUSIONS

The Phase II/III findings identified a number of AOCs and SAs where RSR exceedances were detected in soil and/or groundwater. Several locations have both soil and groundwater RSR exceedances. Remedial options, including Environmental Land Use Restrictions (ELURs) may be addressed in the Remedial Action Plan (RAP).

Soil Remediation Requirements. Soil with concentrations of COCs exceeding the GB PMC which is not "environmentally isolated" must be remediated to the seasonal high water table. Soil with concentrations of contaminants exceeding the R DEC and/or I/C DEC must be remediated to a depth of 15 feet of the ground surface or rendered "inaccessible".

"Environmentally isolated soil" is defined as polluted soil which is (A) beneath an existing building or another existing and permanent structure which the Commissioner has determined in writing would prevent the migration of pollutants; (B) not a continuing source of pollution; (C) not polluted with volatile organic substances, or if polluted with such substances, the concentration of such substances has been reduced to the maximum extent prudent; and (D) above the seasonal high water table. [22a-133k-1(a)(15)]

The pollutant mobility criteria ("PMC") do not apply to environmentally isolated soils, provided an environmental land use restriction ("ELUR") is in effect that ensures that such soil will not be exposed to infiltration of soil water due to demolition of the building or structure. [22a-133k-2(c) (4) (B)]

Environmentally isolated soils are also considered "inaccessible", thereby addressing direct exposure criteria (DEC) exceedances. The RSRs define "inaccessible soils" as polluted soil which is: (A) more than four feet below the ground surface; (B) more than two feet below a paved surface comprised of a minimum of three inches of bituminous concrete or concrete, which two feet may include the depth of any material used as sub-base for the pavement; or (C)(i) beneath an existing building or (ii) beneath another existing permanent structure provided written notice that such structure will be used to prevent human contact with such soil has been provided to the CTDEP. Therefore, soils that exceed DEC may be addressed by covering them with clean fill and/or a paved surface ("rendered inaccessible"). If soils that exceed DEC are rendered inaccessible, an ELUR would have to be recorded on the municipal land records.

An ELUR for the R DEC would restrict future residential use or the future disturbance of the area, unless remediation to comply with the R DEC was completed. An ELUR for I/C DEC would restrict future disturbance of the affected soil.

The RSRs allow for the use of an "engineered control" to effectively eliminate migration of contaminants that exceed the pollutant mobility criteria or to render soil that exceeds DEC inaccessible. It is possible that a redevelopment plan would take into consideration soil contamination at concentrations exceeding the R DEC and GB PMC and incorporate the utilization of paved surfaces such as parking lots, driveways, walkways and basketball courts to cap the contaminated materials. In non-paved areas, above grade planting beds that incorporate the use of a geotextile fabric or other barrier over the contaminated soil could be used as an engineered control. This conceptual engineered control plan would therefore incorporate the requirements of RSRs into a redevelopment plan and would require CTDEP approval.

To implement an engineered control, a report must be submitted to CTDEP summarizing the proposed engineered control and the maintenance and monitoring which will be conducted as part of the engineered control system. A public notice and comment period is also required, and an ELUR would have to be recorded.

Groundwater Remediation Requirements. The RSRs require that groundwater at the site be remediated to meet the requirements of the SWPC and R VC and/or the I/C VC. An alternative SWPC could potentially address SWPC exceedances. However, CTDEP approval of any proposed alternative SWPC would be required.

Additional groundwater monitoring and additional monitoring wells may be required in the area of the VOC plume (AOC-25), including off-site locations to the east, in order to evaluate plume boundaries. If COC concentrations are below the SWPC, compliance with the SWPC may be achieved as long as the plume is considered at steady state and not expanding.

If VC exceedances are detected, building construction would require the installation of a system to prevent VOC migration into interior areas. If construction is planned in areas where VC exceedances are present, remediation of groundwater would be required to comply with the VC. If compliance with the VC is unattainable, an ELUR would be required to prohibit construction of any building without a vapor control. Following soil remediation, natural attenuation is likely a viable option for groundwater remediation under the RSRs, and is a recommended alternative for groundwater issues at the site. Pre- remediation groundwater monitoring is recommended to evaluate contaminant trends. Post soil remediation groundwater monitoring would also be required.

15.0 REMEDIATION AND REDEVLOPMENT PROCESS

Remedial activities and the associated costs are contingent upon the redevelopment plans. At this time, the plans have not been developed. Based on the redevelopment plan, flood control and RSR requirements, a RAP would be developed and submitted to the CT DEP for review and approval, presumably, in accordance with the Connecticut Voluntary Remediation Program. The RAP would address all remedial activities, and possibly demolition activities, design requirements, permitting, engineering controls and associated monitoring and maintenance issues, and post remediation and natural attenuation monitoring. Since the remediation will be integrated with the redevelopment, it is recommended that the planning of the remediation and redevelopment be conducted simultaneously.

16.0 REFERENCES

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Appendix A

Appendix A

APPENDIX A: STATEMENT OF LIMITATIONS

STATEMENT OF LIMITATIONS

SITE INVESTIGATIONS

The data presented and the opinions expressed in this report are qualified as follows:

1. The sole purpose of the investigation and of this report is to assess the physical characteristics of the Site with respect to the presence or absence in the environment of oil or hazardous materials and substances as defined in the applicable state and federal environmental laws and regulations and to gather information regarding current and past environmental conditions at the Site.

2. Metcalf & Eddy, Inc. (M&E) derived the data in this report primarily from visual inspections, examination of records in the public domain, interviews with individuals with information about the Site, and a limited number of subsurface explorations made on the dates indicated. The passage of time, manifestation of latent conditions or occurrence of future events may require further exploration at the Site, analysis of the data, and reevaluation of the findings, observations, and conclusions expressed in the report.

3. In preparing this report, M&E has relied upon and presumed accurate certain information (or the absence thereof) about the Site and adjacent properties provided by governmental officials and agencies, the Client, and others identified herein. Except as otherwise stated in the report, M&E has not attempted to verify the accuracy or completeness of any such information.

4. The data reported and the findings, observations, and conclusions expressed in the report are limited by the Scope of Services, including the extent of subsurface exploration and other tests. The Scope of Services was defined by the requests of the Client, the time and budgetary constraints imposed by the Client, and the availability of access to the Site.

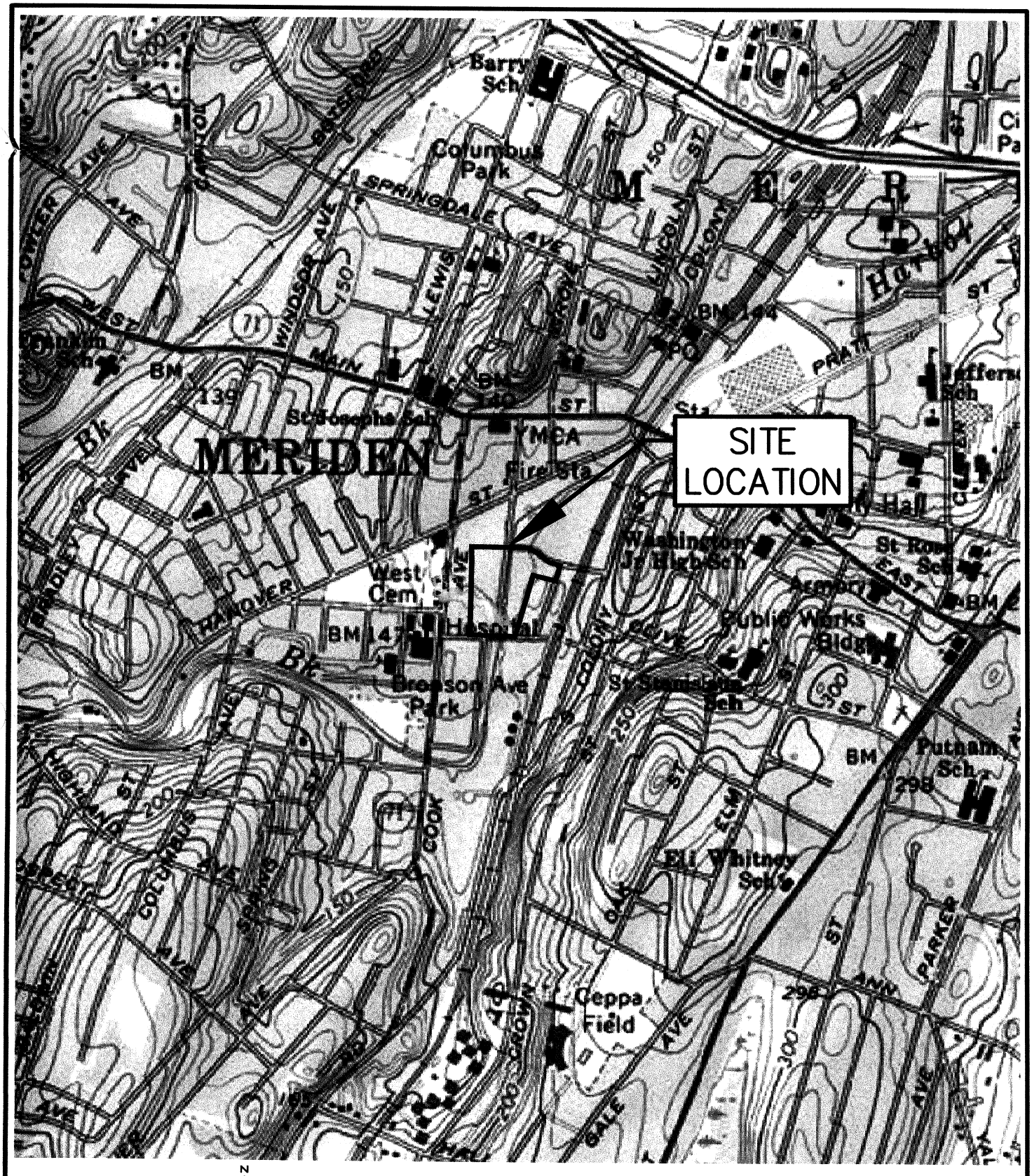
5. Because of the limitations stated above, the findings, observations, and conclusions expressed by M&E in this report are not, and should not be considered, an opinion concerning the compliance of any past or present owner or operator of the Site with any federal, state, or local law or regulation. No warranty or guarantee, whether expressed or implied, is made with respect to the data reported or findings, observations, and conclusions expressed in this report. Further, such data, findings, observations, and conclusions are based solely upon site conditions in existence at the time of investigation.

6. This report has been prepared on behalf of and for the exclusive use of the Client, and is subject to and issued in connection with the Agreement and the provisions thereof.

Appendix B

Appendix B

APPENDIX B: FIGURES



METCALF & EDDY | AECOM

CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H
77 COOPER STREET
MERIDEN, CT

FIGURE 1 – SITE LOCATION MAP

AS NOTED | DATE: MAR. 2007

LAST UPDATE: Wednesday, March 28, 2007 10:41:59 AM
PLOT DATE: Wednesday, March 28, 2007 1(4 AM
PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\CZMER002.DWG
ANSI A – 3 05

N

Summary of Areas of Concern

No.	Area of Concern	Location
1	2 - 20,000-gallon USTs	East side of Building C
2	1 - 1,000-gallon UST	Southeast side of Building A
3	1 - 10,000-gallon UST	Along Harbor Brook north of Building B
4	1 - UST of unknown size	South side of Building C
5	2 - USTs of unknown size	Curbed areas along southeast side of Building A
6	5 - USTs of unknown size	Fill pipes along northeast side of Building A
7	2 - 200-gallon ASTs	Ground floor of Building C
8	1 - 1,500-gallon AST	Ground floor of Building C
9	2 - 300-gallon ASTs	North and west side of ground floor of Building A
10	1 - 150,000-gallon AST (Water tower)	South of Building C
11	11 - 55-gallon drums	Throughout southwestern portion of property
12	Discharge pipes	East of Building A along Harbor Brook
13	Dry well	Southeast of Building B
14	Dust piles	East of Building A under dust collectors
15	Debris piles (5 locations)	East of Harbor Brook and southwest corner of property
16	Debris pile	Southwest side of Building A
17	Contaminated soil	Northeast corner of property in vicinity of former Building D
18	Contaminated soil	Area adjacent to Building C
19	Contaminated soil	Under dust piles east of Building A.
20	Contaminated wood floor	South end of Building A
21	Stained concrete	North end of Building A
22	Debris pile	Adjacent to smoke stack south of Building C
23	Stained soil	East of Building A
24	Possible UST	West side of former Building D
25	Contaminated groundwater	Various portions of property
26	Contaminated surface water and sediments	Harbor Brook
27	Asbestos containing materials	Throughout building interiors
28	Lead paint	Throughout building interiors

No.	Area of Concern	Location
29	Fluorescent light ballasts	Throughout building interiors
30	Louie's Auto shop (55 Cooper St.)	Down-gradient of Louie's Auto.
31	Site-wide surficial soils	Throughout site.
32	Building B Transformers	In building interior.
33	Soil and Groundwater Beneath Building A	Building A
SA-A	Stabilization Area A Smokestack Removed	South of Building C
SA-B	Stabilization Area B Contaminated Soil Piles Removed (AOC-15)	Between former smokestack and 10,000 gal. UST
SA-C	Stabilization Area C Asphalt Piles Removed	East of Stabilization Area B
SA-D	Stabilization Area D Asbestos-Impacted Soil Removed	Underneath former elevated heat transfer line
SA-E	Stabilization Area E Metal-Impacted Soil Removed	Underneath former elevated heat transfer line and west of former smokestack
SA-F	Stabilization Area F Impacted Soil Stockpile Staging Area #1	Located along eastern site boundary
SA-G	Stabilization Area G 10,000-gal. Waste Water UST Removed (AOC-3)	See AOC-3
SA-H	Stabilization Area H Metal-Impacted Soil Removed	Adjacent to and north of 10,000-gal. waste water UST
SA-I	Stabilization Area I Impacted Soil Stockpile Staging Area #2 (Part of AOC-15)	Located along eastern site boundary
SA-J	Stabilization Area J 275 Gal. Gasoline UST Removed	See AOC-4
SA-K	Stabilization Area K Oil-Stained Soil Removed	See AOC-18
SA-L	Stabilization Area L 2x20,000-gal. #6 Oil Tanks Cleaned	See AOC-1
SA-M	Stabilization Area M Impacted-Soil and Fire Debris Pile Removed	In location of former Building D
SA-N	Stabilization Area N Building "C" Asbestos and Lead Abatement Work	At Building C
SA-O	Stabilization Area O Impacted-Soil and Debris Pile Removed	Just southeast of footbridge
SA-P	Stabilization Area P Asbestos Roof Removed from UST Bunker	At UST bunker located adjacent to Nuilding C
SA-Q	Stabilization Area Q Building "B" Asbestos and Lead Abatement Work	At Building B
SA-R	Stabilization Area R Metals-Impacted Soils Removed and Stone Cover Installed (AOC-6)	See AOCs-14 and -19
SA-S	Stabilization Area S Sump Cleaned of Metal-Impacted Sludge	Adjacent to Building A near Building B
SA-T	Stabilization Area T Building "A" 2nd & 3rd Floor Asbestos Abatement Work - Address other Portions of Building	At Building A
SA-U	Stabilization Area U 1,000-gal. Heating Oil UST Cleaned (AOC-2)	See AOC-2
SA-V	Stabilization Area V UST Grave Found (No UST)	See AOC-5
SA-W	Stabilization Area W Empty Concrete Vault Found	See AOC-5

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. ESTIMATED EXTENTS OF VOC PLUME BASED ON HISTORIC DATA.

5. AOC'S NOT IDENTIFIED ON FIGURE: AOC-31, AOC-25

LEGEND:

- EDGE OF BUILDING/STRUCTURE
- EDGE OF PAVEMENT
- FENCE
- APPROXIMATE SITE BOUNDARY
- SA-B — CTDEP REMOVAL/STABILIZATION AREAS
- AOC-# — AREA OF CONCERN
- X — CHLORINATED VOCs DETECTED

1" = 40' SCALE 0 40 80 120 FEET

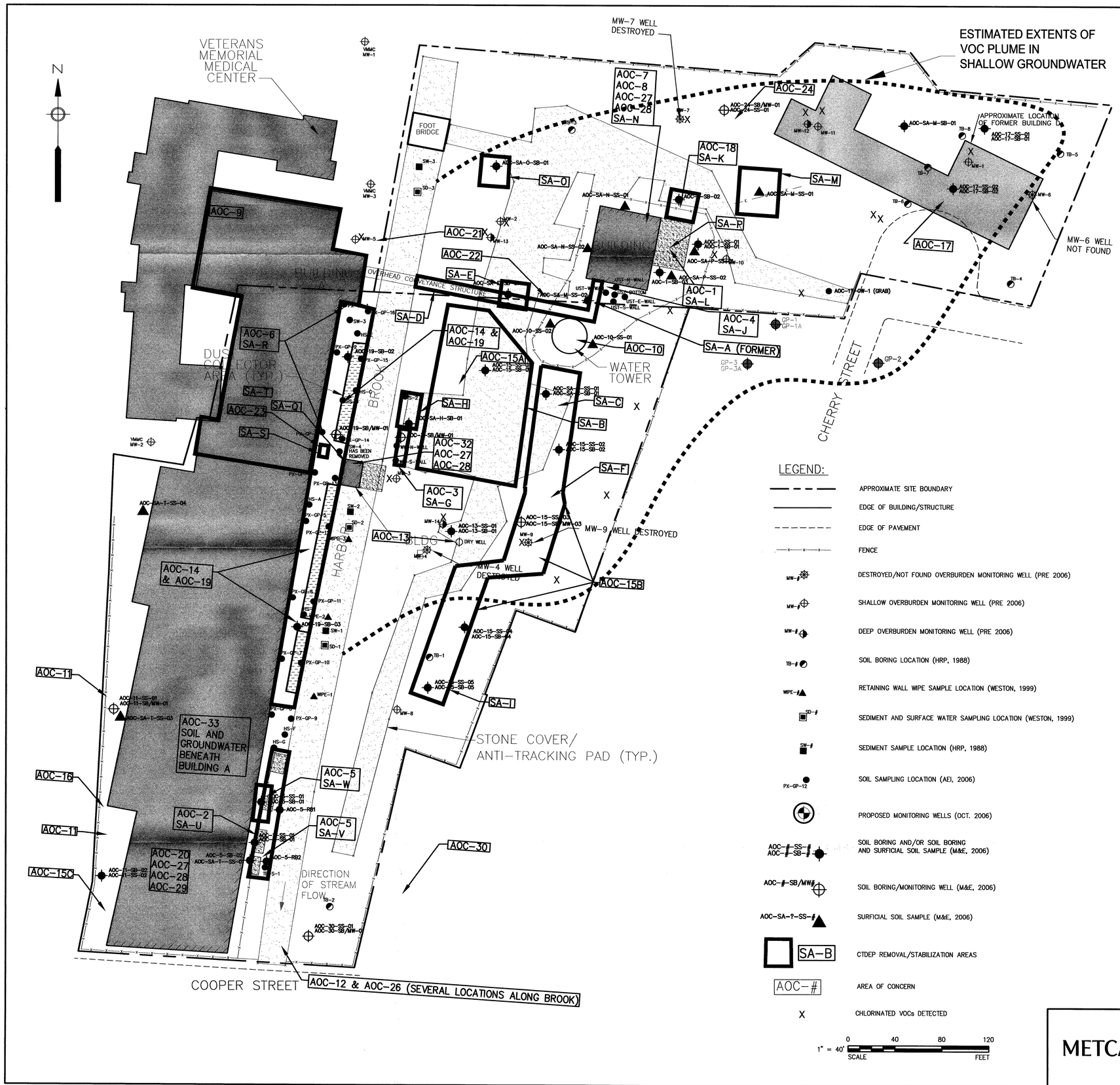
METCALF & EDDY | AECOM

CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 2
SITE PLAN AND AREAS OF CONCERN
PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER002.DWG PLOT DATE: Wednesday, March 28, 2007 10:07:02 AM LAST UPDATE: Monday, March 26, 2007 10:55:21 AM



Summary of Areas of Concern

No.	Area of Concern	Location
1	2 - 20,000-gallon USTs	East side of Building C
2	1 - 1,000-gallon UST	Southeast side of Building A
3	1 - 10,000-gallon UST	Along Harbor Brook north of Building B
4	1 - UST of unknown size	South side of Building C
5	2 - USTs of unknown size	Curbed areas along southeast side of Building A
6	5 - USTs of unknown size	Fill pipes along northeast side of Building A
7	2 - 200-gallon ASTs	Ground floor of Building C
8	1 - 1,500-gallon AST	Ground floor of Building C
9	2 - 300-gallon ASTs	North and west side of ground floor of Building A
10	1 - 150,000-gallon AST (Water tower)	South of Building C
11	11 - 55-gallon drums	Throughout southwestern portion of property
12	Discharge pipes	East of Building A along Harbor Brook
13	Dry well	Southeast of Building B
14	Dust piles	East of Building A under dust collectors
15	Debris piles (5 locations)	East of Harbor Brook and southwest corner of property
16	Debris pile	Southwest side of Building A
17	Contaminated soil	Northeast corner of property in vicinity of former Building D
18	Contaminated soil	Area adjacent to Building C
19	Contaminated soil	Under dust piles east of Building A.
20	Contaminated wood floor	South end of Building A
21	Stained concrete	North end of Building A
22	Debris pile	Adjacent to smoke stack south of Building C
23	Stained soil	East of Building A
24	Possible UST	West side of former Building D
25	Contaminated groundwater	Various portions of property
26	Contaminated surface water and sediments	Harbor Brook
27	Asbestos containing materials	Throughout building interiors
28	Lead paint	Throughout building interiors

No.	Area of Concern	Location
29	Fluorescent light ballasts	Throughout building interiors
30	Louie's Auto shop (55 Cooper St.)	Down-gradient of Louie's Auto.
31	Site-wide surficial soils	Throughout site.
32	Building B Transformers	In building interior.
33	Soil and Groundwater Beneath Building A	Building A
SA-A	Stabilization Area A Smokestack Removed	South of Building C
SA-B	Stabilization Area B Contaminated Soil Piles Removed (AOC-15)	Between former smokestack and 10,000 gal. UST
SA-C	Stabilization Area C Asphalt Piles Removed	East of Stabilization Area B
SA-D	Stabilization Area D Asbestos-Impacted Soil Removed	Underneath former elevated heat transfer line
SA-E	Stabilization Area E Metal-Impacted Soil Removed	Underneath former elevated heat transfer line and west of former smokestack
SA-F	Stabilization Area F Impacted Soil Stockpile Staging Area #1	Located along eastern site boundary
SA-G	Stabilization Area G 10,000-gal. Waste Water UST Removed (AOC-3)	See AOC-3
SA-H	Stabilization Area H Metal-Impacted Soil Removed	Adjacent to and north of 10,000-gal. waste water UST
SA-I	Stabilization Area I Impacted Soil Stockpile Staging Area #2 (Part of AOC-15)	Located along eastern site boundary
SA-J	Stabilization Area J 275 Gal. Gasoline UST Removed	See AOC-4
SA-K	Stabilization Area K Oil-Stained Soil Removed	See AOC-18
SA-L	Stabilization Area L 2x20,000-gal. #6 Oil Tanks Cleaned	See AOC-1
SA-M	Stabilization Area M Impacted-Soil and Fire Debris Pile Removed	In location of former Building D
SA-N	Stabilization Area N Building "C" Asbestos and Lead Abatement Work	At Building C
SA-O	Stabilization Area O Impacted-Soil and Debris Pile Removed	Just southeast of footbridge
SA-P	Stabilization Area P Asbestos Roof Removed from UST Bunker	At UST bunker located adjacent to Nuilding C
SA-Q	Stabilization Area Q Building "B" Asbestos and Lead Abatement Work	At Building B
SA-R	Stabilization Area R Metals-Impacted Soils Removed and Stone Cover Installed (AOC-6)	See AOCs-14 and -19
SA-S	Stabilization Area S Sump Cleaned of Metal-Impacted Sludge	Adjacent to Building A near Building B
SA-T	Stabilization Area T Building "A" 2nd & 3rd Floor Asbestos Abatement Work - Address other Portions of Building	At Building A
SA-U	Stabilization Area U 1,000-gal. Heating Oil UST Cleaned (AOC-2)	See AOC-2
SA-V	Stabilization Area V UST Grave Found (No UST)	See AOC-5
SA-W	Stabilization Area W Empty Concrete Vault Found	See AOC-5

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. M&E (2006) LOCATIONS WERE SURVEYED UNLESS NOTED IN NOTE 5. ALL OTHER SAMPLE LOCATIONS ARE APPROXIMATE.

5. SAMPLE LOCATIONS AOC-5-RB1, AOC-5-RB2, AND AOC-SA-M-SS-01 ARE ESTIMATED.

6. ESTIMATED EXTENTS OF VOC PLUME BASED ON HISTORIC DATA.

7. AOC'S NOT IDIENTIFIED ON FIGURE: AOC-31, AND AOC-25

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CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 3
SAMPLE LOCATION PLAN

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER003.DWG PLOT DATE: Wednesday, March 28, 2007 10:08:08 AM LAST UPDATE: Wednesday, March 28, 2007 10:04:21 AM

EXCEEDANCE LEGEND:

- EXCEEDANCE OF RESIDENTIAL DIRECT EXPOSURE CRITERIA (R DEC)
- EXCEEDANCE OF INDUSTRIAL/COMMERCIAL DIRECT EXPOSURE CRITERIA (I/C DEC)
- EXCEEDANCE OF GB POLLUTANT MOBILITY CRITERIA (GB PMC)
- ESTIMATED LIMIT OF SOIL EXCEEDING I/C DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING R DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING GB PMC

LEGEND:

- APPROXIMATE SITE BOUNDARY
- EDGE OF BUILDING/STRUCTURE
- EDGE OF PAVEMENT
- FENCE
- MW-# — DESTROYED/NOT FOUND OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# — SHALLOW OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# — DEEP OVERBURDEN MONITORING WELL (PRE 2006)
- TB-# — SOIL BORING LOCATION (HRP, 1988)
- WIPE-# — RETAINING WALL WIPE SAMPLE LOCATION (WESTON, 1999)
- SD-# — SEDIMENT AND SURFACE WATER SAMPLING LOCATION (WESTON, 1999)
- SW-# — SEDIMENT SAMPLE LOCATION (HRP, 1988)
- PX-GP-12 — SOIL SAMPLING LOCATION (AEI, 2006)
- AOC-#-SS-# / AOC-#-SB-# — SOIL BORING AND/OR SOIL BORING AND SURFICIAL SOIL SAMPLE (M&E, 2006)
- AOC-#-SB/MW# — SOIL BORING/MONITORING WELL (M&E, 2006)
- AOC-SA-?-SS-# — SURFICIAL SOIL SAMPLE (M&E, 2006)
- ELE. = 133.85 — STREAM GAGE ELEVATIONS
- SA-B — CTDEP REMOVAL/STABILIZATION AREAS
- AOC-# — AREA OF CONCERN

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. M&E (2006) LOCATIONS WERE SURVEYED UNLESS NOTED IN NOTE 5.

5. SAMPLE LOCATIONS AOC-5-RB1, AOC-5-RB2, AND AOC-SA-M-SS-01 ARE ESTIMATED.

6. DATA FOR THREE SHALLOW SOIL SAMPLES FROM GZA(2000) IS NOT INCORPORATED INTO THIS FIGURE. THOSE SAMPLES WERE REPORTEDLY COLLECTED IN THE VICINITY OF THE DUST COLLECTORS AND A FORMER TRANSFORMER PAD. THAT SOIL WAS REMOVED DURING THE CTDEP STABILIZATION ACTIONS IN 2005.

1" = 40' — 0 40 80 120 SCALE FEET

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CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 4 – SOIL SAMPLES (0'–2' BGS) EXCEEDING RSR CRITERIA

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER004.DWG PLOT DATE: Wednesday, March 28, 2007 10:34:22 AM LAST UPDATE: Wednesday, March 28, 2007 10:31:21 AM

EXCEEDANCE LEGEND:

- EXCEEDANCE OF RESIDENTIAL DIRECT EXPOSURE CRITERIA (R DEC)
- EXCEEDANCE OF INDUSTRIAL/COMMERCIAL DIRECT EXPOSURE CRITERIA (I/C DEC)
- EXCEEDANCE OF GB POLLUTANT MOBILITY CRITERIA (GB PMC)
- ESTIMATED LIMIT OF SOIL EXCEEDING I/C DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING R DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING GB PMC

LEGEND:

- APPROXIMATE SITE BOUNDARY
- EDGE OF BUILDING/STRUCTURE
- EDGE OF PAVEMENT
- FENCE
- MW-# DESTROYED/NOT FOUND OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# SHALLOW OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# DEEP OVERBURDEN MONITORING WELL (PRE 2006)
- TB-# SOIL BORING LOCATION (HRP, 1988)
- WIPE-# RETAINING WALL WIPE SAMPLE LOCATION (WESTON, 1999)
- SD-# SEDIMENT AND SURFACE WATER SAMPLING LOCATION (WESTON, 1999)
- SW-# SEDIMENT SAMPLE LOCATION (HRP, 1988)
- PX-GP-12 SOIL SAMPLING LOCATION (AEI, 2006)
- AOC-#-SS-# / AOC-#-SB-# SOIL BORING AND/OR SOIL BORING AND SURFICIAL SOIL SAMPLE (M&E, 2006)
- AOC-#-SB/MW# SOIL BORING/MONITORING WELL (M&E, 2006)
- AOC-SA-?-SS-# SURFICIAL SOIL SAMPLE (M&E, 2006)
- SA-B CTDEP REMOVAL/STABILIZATION AREAS
- AOC-# AREA OF CONCERN

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. M&E (2006) LOCATIONS WERE SURVEYED UNLESS NOTED IN NOTE 5.

5. SAMPLE LOCATIONS AOC-5-RB1, AOC-5-RB2, AND AOC-SA-M-SS-01 ARE ESTIMATED.

6. DATA FOR THREE SHALLOW SOIL SAMPLES FROM GZA(2000) IS NOT INCORPORATED INTO THIS FIGURE. THOSE SAMPLES WERE REPORTEDLY COLLECTED IN THE VICINITY OF THE DUST COLLECTORS AND A FORMER TRANSFORMER PAD. THAT SOIL WAS REMOVED DURING THE CTDEP STABILIZATION ACTIONS IN 2005.

1" = 40' SCALE — 0 40 80 120 FEET

METCALF & EDDY | AECOM

CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 5 – SOIL SAMPLES (2'–4' BGS) EXCEEDING RSR CRITERIA

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER005.DWG PLOT DATE: Wednesday, March 28, 2007 10:33:12 AM LAST UPDATE: Monday, March 26, 2007 11:42:33 AM

EXCEEDANCE LEGEND:

- EXCEEDANCE OF RESIDENTIAL DIRECT EXPOSURE CRITERIA (R DEC)
- EXCEEDANCE OF INDUSTRIAL/COMMERCIAL DIRECT EXPOSURE CRITERIA (I/C DEC)
- EXCEEDANCE OF GB POLLUTANT MOBILITY CRITERIA (GB PMC)
- ESTIMATED LIMIT OF SOIL EXCEEDING I/C DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING R DEC
- ESTIMATED LIMIT OF SOIL EXCEEDING GB PMC
- (2-4) DEPTH (FT BGS) OF EXCEEDANCE

LEGEND:

- APPROXIMATE SITE BOUNDARY
- EDGE OF BUILDING/STRUCTURE
- EDGE OF PAVEMENT
- FENCE
- MW-# DESTROYED/NOT FOUND OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# SHALLOW OVERBURDEN MONITORING WELL (PRE 2006)
- MW-# DEEP OVERBURDEN MONITORING WELL (PRE 2006)
- TB-# SOIL BORING LOCATION (HRP, 1988)
- WIPE-# RETAINING WALL WIPE SAMPLE LOCATION (WESTON, 1999)
- SD-# SEDIMENT AND SURFACE WATER SAMPLING LOCATION (WESTON, 1999)
- SW-# SEDIMENT SAMPLE LOCATION (HRP, 1988)
- PX-GP-12 SOIL SAMPLING LOCATION (AEI, 2006)
- AOC-#-SS-# / AOC-#-SB-# SOIL BORING AND/OR SOIL BORING AND SURFICIAL SOIL SAMPLE (M&E, 2006)
- AOC-#-SB/MW# SOIL BORING/MONITORING WELL (M&E, 2006)
- AOC-SA-?-SS-# SURFICIAL SOIL SAMPLE (M&E, 2006)
- ELE. = 133.85 STREAM GAGE ELEVATIONS
- SA-B CTDEP REMOVAL/STABILIZATION AREAS
- AOC-# AREA OF CONCERN

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. M&E (2006) LOCATIONS WERE SURVEYED UNLESS NOTED IN NOTE 5.

5. SAMPLE LOCATIONS AOC-5-RB1, AOC-5-RB2, AND AOC-SA-M-SS-01 ARE ESTIMATED.

6. DATA FOR THREE SHALLOW SOIL SAMPLES FROM GZA(2000) IS NOT INCORPORATED INTO THIS FIGURE. THOSE SAMPLES WERE REPORTEDLY COLLECTED IT THE VICINITY OF THE DUST COLLECTORS AND A FORMER TRANSFORMER PAD. THAT SOIL WAS REMOVED DURING THE CTDEP STABILIZATION ACTIONS IN 2005.

1" = 40' 0 40 80 120 SCALE FEET

METCALF & EDDY | AECOM

CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 6 – SOIL SAMPLES (>4' BGS) EXCEEDING RSR CRITERIA

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER006.DWG PLOT DATE: Wednesday, March 28, 2007 10:34:46 AM LAST UPDATE: Monday, March 26, 2007 11:42:36 AM

CT RSR EXCEEDANCE TABLE			
WELL ID	R VC	I/C VC	SWPC
MW-1 (AOC-17	VINYL CHLORIDE	VINYL CHLORIDE	--
MW-11 (AOC-17)	TRICHLOROETHYLENE, VINYL CHLORIDE	--	TETRACHLOROETHYLENE, ZINC
AOC-3-MW-1	TRICHLOROETHYLENE, VINYL CHLORIDE	TRICHLOROETHYLENE	TETRACHLOROETHYLENE
AOC-24-MW-1	TRICHLOROETHYLENE	--	--
MW-100 (AOC-25)	TRICHLOROETHYLENE	TRICHLOROETHYLENE	TETRACHLOROETHYLENE
MW-101 (AOC-25)	CIS-1,2-DICHLOROETHYLENE, TETRACHLOROETHYLENE, TRICHLOROETHYLENE, VINYL CHLORIDE	TRICHLOROETHYLENE, VINYL CHLORIDE	TETRACHLOROETHYLENE
MW-102 (AOC-25)	TRICHLOROETHYLENE, VINYL CHLORIDE	TRICHLOROETHYLENE	TETRACHLOROETHYLENE

EXCEEDANCE LEGEND:

EXCEEDS PROPOSED MARCH, 2003 RESIDENTIAL VOLATIZATION CRITERIA (R VC)

EXCEEDS PROPOSED MARCH, 2003 INDUSTRIAL/COMMERCIAL VOLATIZATION CRITERIA (I/C VC)

EXCEEDS SURFACE WATER PROTECTION CRITERIA (SWPC)

CHLORINATED VOCs DETECTED

N

LEGEND:

SITE BOUNDARY

FENCE

DESTROYED/NOT FOUND OVERBURDEN MONITORING WELL (PRE 2006)

SHALLOW OVERBURDEN MONITORING WELL (PRE 2006)

DEEP OVERBURDEN MONITORING WELL (PRE 2006)

SOIL BORING LOCATION (HRP, 1988)

RETAINING WALL WIPE SAMPLE LOCATION (WESTON, 1999)

SEDIMENT AND SURFACE WATER SAMPLING LOCATION (WESTON, 1999)

SEDIMENT SAMPLE LOCATION (HRP, 2006)

SOIL SAMPLING LOCAITON (AEI, 2006)

STREAM GAGE ELEVATIONS

SOIL BORING AND/OR SOIL BORING AND SURFICIAL SOIL SAMPLE (M&E, 2006)

SOIL BORING/MONITORING WELL (M&E, 2006)

SURFICIAL SOIL SAMPLE (M&E, 2006)

134 — ESTIMATED GROUNDWATER ELEVATION CONTOUR (DASHED WHERE INFERRED)

133.85 — GROUNDWATER SPOT ELEVATION

SCREENED INTERVAL OF GROUNDWATER MONITORING WELL (DEPTH BELOW GROUND SURFACE IN FEET)

DEFINED AS "SHALLOW" OR "DEEP" SCREENED WELL (WESTON, 1999)

CTDEP GROUNDWATER MONITORING WELL AND SOIL GAS SAMPLING LOCATION

CTDEP GROUNDWATER MONITORING WELL LOCATION

SA-B — CTDEP REMOVAL/STABILIZATION AREAS

AOC-# — AREA OF CONCERN

WELL ELEVATIONS			
	CASING	PVC	GND.
MW-1	150.11	150.02	147.61
MW-3	142.16	142.16	140.56
MW-8	140.94	140.69	137.44
MW-9	140.57	139.98	137.54
MW-10	146.52	146.35	143.82
MW-11	143.95	143.71	141.15
MW-12	143.64	143.20	141.04
MW-13	141.25	141.09	138.45
MW-14	139.12	138.82	136.72
AOC-3	143.00	142.72	139.30
AOC-5	141.20	140.85	138.30
AOC-11	140.59	140.29	137.09
AOC-19	143.09	142.84	139.44
AOC-19	139.41	139.21	139.41

WELL ELEVATIONS			
	CASING	PVC	GND.
MW-100	150.04	148.86	146.7
MW-101	150.22	149.94	146.3
MW-102	148.68	147.59	145.0
MW-103	148.25	147.93	144.45
MW-104	146.55	146.36	142.7
MW-105	145.09	144.80	141.1
MW-106	143.30	143.19	139.1
MW-107	142.59	142.16	138.4
FOOTBRIDGE			142.07
COOPER STREET			145.01

MAP REFERENCES/NOTES:

1. THE AERIAL PHOTOGRAPH WAS OBTAINED FROM THE CITY OF MERIDEN'S GIS DEPARTMENT. THE AERIAL PHOTOGRAPH WAS PRODUCED IN 2005.

2. AREAS OF CONCERN WERE GENERALLY OBTAINED FROM WESTON REPORT (WESTON, SEPT. 1999) AND CTDEP FACTORY H REMOVAL/STABILIZATION AREAS SKETCH (AEI, JAN. 2006).

3. NAFIS & YOUNG SURVEY (2006)

4. M&E (2006) LOCATIONS WERE SURVEYED UNLESS NOTED IN NOTE 5.

5. SAMPLE LOCATIONS AOC-5-RB1, AND AOC-5-RB1, AND AOC-SA-M-SS-01 ARE ESTIMATE

6. MONITORING WELL MW-12 WAS NOT USED TO ESTIMATE GROUNDWATER ELEVATION CONTOUR

7. THE LNAPL THICKNESS WAS APPROXIMATELY SEVERAL INCHES.

8. ESTIMATED EXTENTS OF VOC PLUME IN SHALLOW GROUNDWATER BASED ON DETECTIONS OF CHLORINATED VOCs DURING 2006 SAMPLING EVENT.

1" = 40' 0 40 80 120 SCALE FEET

METCALF & EDDY | AECOM

CITY OF MERIDEN, CONNECTICUT
INTERNATIONAL SILVER COMPANY, FACTORY H

FIGURE 7 – GROUNDWATER EXCEEDANCES & CONTOUR MAP

PHASE II/III ENVIRONMENTAL SITE ASSESSMENT

SCALE: AS NOTED | DATE: MARCH 2007

PATH/FILENAME: X:\60004878 (FACTORY H)\CAD\PHASE II AND III\REPORT FIGURES\CZMER007B.DWG PLOT DATE: Wednesday, March 28, 2007 12:39:32 AM LAST UPDATE: Wednesday, March 28, 2007 11:41:55 AM

Appendix C

Appendix C

MAP DISCLAIMER:
This map does not represent a professional survey.
The data has been abstracted to only contain the information required for local government purposes. Property information shown here is a representation of official records. You should always use the original recorded documents to answer legal and survey questions.

Every reasonable effort has been made to assure the accuracy of the map and data provided; nevertheless, some information may not be accurate. The City of Meriden assumes no responsibility arising from the use of this map.

77 Cooper St.
104 Butler St.

N
W E
S

CITY OF MERIDEN
ECONOMIC DEVELOPMENT
OFFICE
Phone: 203-630-4151
Fax: 203-630-4274

1 inch equals 130 feet
10/06

APPENDIX C: PHOTOGRAPHS

Photo Documentation
Phase II & III Site Assessment
Insilco, Factory H Site
Meriden, Connecticut

Building C, 104 Butler Street parcel; looking west from Cherry Street.

Building C and Water Tower, 104 Butler Street parcel; looking northeast.

Photo Documentation
Phase II & III Site Assessment
Insilco, Factory H Site
Meriden, Connecticut

Open Area, 104 Butler Street parcel; looking south toward Cooper Street.

Eastern Property Boundary, 104 Butler Street parcel; looking east toward residential properties on Cherry Street.

Photo Documentation
Phase II & III Site Assessment
Insilco, Factory H Site
Meriden, Connecticut

Building C Water Tower and Eastern Property Boundary area, 104 Butler Street parcel; looking north.

Building A and dust collectors, 77 Cooper Street parcel; looking west from 104 Butler Street parcel.

Photo Documentation
Phase II & III Site Assessment
Insilco, Factory H Site
Meriden, Connecticut

Building B, 77 Cooper Street parcel; looking west.

Building A and dust collectors, 77 Cooper Street parcel; looking south.

Photo Documentation
Phase II & III Site Assessment
Insilco, Factory H Site
Meriden, Connecticut

Cooper Street bridge and Harbor Brook; looking southwest.

Building A interior, 77 Cooper Street parcel; looking southwest.

Appendix D

Appendix D

APPENDIX D: TABLES

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
1	2 - 20,000-gallon USTs	East side of Building C	Reported to be steel construction and have contained diesel fuel. Unknown installation date.	Upgradient soil boring & soil gas survey (Weston, 1998) and GPR Survey (AEI, 2005); Phase II/III (M&E, 2006)	Contents of tanks pumped out (GZA, 2000)
2	1 - 1,000-gallon UST	Southeast side of Building A	Reported to be steel construction and have contained kerosene. Unknown installation date.	Phase II/III (M&E, 2006)	Contents of tank pumped out (GZA, 2000) and empty concrete vault found
3	1 - 10,000-gallon UST	Along Harbor Brook north of Building B	Reported to be steel construction and have contained metal finishing rinse and wastewater. Installed in 1970.	GPR Survey (AEI, 2005) and limited soil sampling data (CTDEP, Sept. 2005); Phase II/III (M&E, 2006)	Tank removed in 2005
4	1 - UST of unknown size	South side of Building C	Contained gasoline; unknown construction and installation date.	Soil sampling of sidewalls and bottom of tank excavation (CTDEP, Sept. 2005)	Tank removed in 2005
5	2 - USTs of unknown size	Curbed areas along southeast side of Building A	Unknown construction, use, and installation date.	GPR Survey (AEI, 2005); Phase II/III (M&E, 2006)	1 1,000 gal UST cleaned and 1 UST grave found
6	5 - USTs of unknown size	Fill pipes along northeast side of Building A	Unknown construction, use, and installation date.	Field observations GPR Survey (AEI, 2005) No tanks appeared to be present No soil or groundwater data is available	None reported
7	2 - 200-gallon ASTs	Ground floor of Building C	Reported to be steel construction. Unknown use and installation date.	Observations	Reported to have been pumped out / removed (email dated 1-30-06)
8	1 - 1,500-gallon AST	Ground floor of Building C	Reported to be concrete construction. Unknown use and installation date.	Observations	Reported to have been pumped out / removed (email dated 1-30-06)
9	2 - 300-gallon ASTs	North and west side of ground floor of Building A	Reported to be concrete construction. Unknown use and installation date.	Tanks are suspected to contain water (GZA, 2000).	None reported
10	1 - 150,000-gallon AST (Water tower)	South of Building C	Reported to be steel construction. Unknown installation date.	Phase II/III (M&E, 2006)	None reported

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
11	11 - 55-gallon drums	Throughout southwestern portion of property	HRP observed four empty drums, and seven partially-filled drums containing unidentified wastes.	Sampling of drum contents (Weston, 1998); Phase II/III (M&E, 2006)	Drums were removed
12	Discharge pipes (to Harbor Brook)	East of Building A along Harbor Brook	Pipes formerly discharged wastewater from Building A to Harbor Brook.	Limited sediment and surface water sampling (Weston, 1998) is available.	None reported
13	Dry well	Southeast of Building B	Unknown materials may have been disposed of via the dry well.	Soil and groundwater sampling conducted at MW-14 (Weston, 1998); Phase II/III (M&E, 2006)	None reported
14	Dust piles	East of Building A under dust collectors	Piles of dust generated from facility's former silver polishing dust collection system.	Sampling of dust pile contents	Dust collectors cleaned and dust piles removed in 2005. Top 2 ft of soil beneath dust collectors removed in 2005. Excavations were backfilled with stone.
15	Debris piles	East of Harbor Brook and southwest corner of property	Several piles of earthen material, scrap, and debris.	Phase II/III (M&E, 2006)	Debris piles removed in 2005.
16	Debris pile- glass slides	Southwest side of Building A	Pile of medical glass slides near the building dock of Building A.	None	None reported
17	Contaminated soil	Northeast corner of property in vicinity of former Building D	Approximately 5,600 ft^2 of chlorinated solvent contaminated soil (to a depth of at least 15 ft below ground surface).	Soil and groundwater sampling and soil gas survey (Weston, 1998); Phase II/III (M&E, 2006)	None reported
18	Contaminated soil	Area adjacent to Building C	15 ft^2 of fuel oil stained soil.	None	Oil stained soil removed in 2005

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
19	Contaminated soil	Under dust piles east of Building A.	1,600 ft^2 of green stained soils contaminated with metals from overlying dust piles.	Soil sampling data (Weston, 1998; GZA, 2000; and CTDEP (2005); Phase II/III (M&E, 2006)	Top 2 ft of soil beneath and in vicinity of dust collectors removed in 2005.
20	Contaminated wood floor	South end of Building A	30 ft^2 of oil stained wooden floor.	None	None reported
21	Stained concrete	North end of Building A	40 ft^2 of stained concrete floor.	None	None reported
22	Asbestos debris pile	Adjacent to smoke stack south of Building C	10 ft^2 of deteriorated insulation material, possibly asbestos-containing material.	None	Debris pile removed.
23	Stained soil	East of Building A	10 ft^2 of paint stains.	Soil sampling data (Weston, 1998; GZA, 2000; and CTDEP (2005)	Top 2 ft of soil beneath and in vicinity of dust collectors removed in 2005.
24	Possible UST	West side of former Building D	Possible UST identified by ICF Kaiser Engineers	Soil gas survey and groundwater sampling data at MW-7, a nearby well (Weston, 1998); Phase II/III (M&E, 2006)	None reported
25	Contaminated groundwater (various areas)	Various portions of property	Groundwater contaminated with chlorinated solvents have been documented in various portions of site.	Groundwater sampling data (Weston, 1998; Milone & MacBroom; GZA, 2000); Phase II/III (M&E, 2006)	None reported
26	Contaminated surface water and sediments	Harbor Brook	Process wastewater is known to have been discharged to Harbor Brook	Limited sediment and surface water sampling (Weston, 1998) is available.	None reported
27	Asbestos containing materials	Throughout building interiors	Asbestos-containing pipe insulation, floor tiles and roof shingles have been identified in on-site buildings	N/A	N/A
28	Lead paint	Throughout building interiors	Peeling paint noted in on-site buildings.	N/A	N/A
29	ballasts	Throughout building interiors	hazardous metals and PCBs.	N/A	N/A

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
30	Louie's Auto shop (55 Cooper St.)	Down-gradient of Louie's Auto.	Louie's Auto shop may be an upgradient source of groundwater contamination.	Phase II/III (M&E, 2006)	None reported
31	Site-wide surficial soils	Throughout site.	Site-wide soil may need to be managed as part of site redevelopment activities.	Limited surficial soil data is available.	In vicinity of dust collectors
32	Building B-transformer/electrical house	In building interior.	Electrical transformers located in building may contain PCBs.	None	None reported
SA-A	Stabilization Area A Smokestack Removed	No further action proposed for this AOC			
SA-B	Stabilization Area B Contaminated Soil Piles Removed (AOC-15)	Between former smokestack and 10,000 gal. UST	Location of former contaminated soil piles, which were comprised of street sweepings, pavement, concrete, stumps, etc.	No soil or groundwater data is available	Piles removed
SA-C	Stabilization Area C Asphalt Piles Removed	East of Stabilization Area B	Location of former asphalt piles	Phase II/III (M&E, 2006)	Piles removed
SA-D	Stabilization Area D Asbestos-Impacted Soil Removed	Underneath former elevated heat transfer line	Asbestos-impacted soils	Limited soil sampling data is available	Visually impacted soil removed
SA-E	Stabilization Area E Metal-Impacted Soil Removed	Underneath former elevated heat transfer line and west of former smokestack	Metal dust-impacted soil	Phase II/III (M&E, 2006)	Visually impacted soil removed
SA-F	Stabilization Area F Impacted Soil Stockpile Staging Area #1	Located along eastern site boundary	Staging area during 2005 stabilization activities. Materials were staged on plastic sheeting.	No soil or groundwater data is available	Stockpile removed in 2005.
SA-G	10,000-gal. Waste Water UST Removed (AOC-3)	See AOC-3			

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
SA-H	Stabilization Area H Metal-Impacted Soil Removed	Adjacent to and north of 10,000-gal. waste water UST	Metal dust-impacted soil	Phase II/III (M&E, 2006)	Visually impacted soil removed
SA-I	Stabilization Area I Impacted Soil Stockpile Staging Area #2 (Part of AOC-15)	Located along eastern site boundary	Staging area during 2005 stabilization activities. Materials were staged on plastic sheeting. However, AOC-15 was also located in this area.	No soil or groundwater data is available	Stockpile removed in 2005.
SA-J	Stabilization Area J 275 Gal. Gasoline UST Removed (AOC-4)	See AOC-4			
SA-K	Stabilization Area K Oil-Stained Soil Removed (AOC-18)	See AOC-18			
SA-L	Stabilization Area L 2x20,000-gal. #6 Oil Tanks Cleaned (AOC-1)	See AOC-1			
SA-M	Stabilization Area M Impacted-Soil and Fire Debris Pile Removed (AOC-15)	In location of former Building D	Pile of impacted soil and fire debris	Phase II/III (M&E, 2006)	Visually impacted soil and debris pile removed
SA-N	Stabilization Area N Building "C" Asbestos and Lead Abatement Work	At Building C	Removal of lead- and asbestos-containing materials	Phase II/III (M&E, 2006)	Lead and asbestos abated in building
SA-O	Stabilization Area O Impacted-Soil and Debris Pile Removed	Just southeast of footbridge	Pile of impacted soil and debris	Phase II/III (M&E, 2006)	Visually impacted soil and debris pile removed
SA-P	Stabilization Area P Asbestos Roof Removed from UST Bunker	At UST bunker located adjacent to Building C	Removal of asbestos-containing materials	Phase II/III (M&E, 2006)	Asbestos abated
SA-Q	Stabilization Area Q Building "B" Asbestos and Lead Abatement Work	At Building B	Removal of lead- and asbestos-containing materials	No visual impacts were observed.	Surficial soil removed on western side of building
SA-R	Metals-Impacted Soils Removed and Stone Cover Installed (AOC-14, 19)	See AOCs-14 and -19			

TABLE 1
Summary of Areas of Concern
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Location	Description	Available Data	Completed Remedial Actions
SA-S	Stabilization Area S Sump Cleaned of Metal-Impacted Sludge	Adjacent to Building A near Building B	Depression in soil that contained metal-impacted sludge	Soil sampling data is available.	Metal-impacted sludge removed
SA-T	Stabilization Area T Building "A" 2nd & 3rd Floor Asbestos Abatement Work - Address other Portions of Building	At Building A	Removal of asbestos-containing materials	Phase II/III (M&E, 2006)	Asbestos abated in building
SA-U	Stabilization Area U 1,000-gal. Heating Oil UST Cleaned (AOC-2)	See AOC-2			
SA-V	Stabilization Area V UST Grave Found (No UST) (AOC-5)	See AOC-5			
SA-W	Stabilization Area W Empty Concrete Vault Found (AOC-5)	See AOC-5			

Notes:
SA = CTDEP stabilization area AOC = Area of Concern
UST = underground storage tank.
AST = aboveground storage tank.
ft^2 = square feet.
PCBs = polychlorinated biphenyls.
N/A = not applicable.
This summary of information is based on the compilation of reports listed in Section 2.5

TABLE 2 - Analytical Summary
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

	Surficial Soil Samples			Soil Borings			Groundwater		TOTAL		QA/QC SAMPLES				
	NUMBER OF LOCATIONS (*)	NUMBER OF TOTALS SAMPLES (1)	NUMBER OF SPLP SAMPLES (1)	NUMBER OF LOCATIONS (*)	NUMBER OF TOTALS SAMPLES (1)	NUMBER OF SPLP SAMPLES (1)	NUMBER OF LOCATIONS (*)	NUMBER OF SAMPLES (1)	NUMBER OF LOCATIONS (*)	NUMBER OF SAMPLES (1)	TRIP BLANKS (2)	EQUIPMENT BLANKS (3)	FIELD DUPLICATES (4)	MS/MSD	TOTAL
Soil Direct Exposure Evaluation															
Polynuclear Aromatic Hydrocarbons (EPA 8270c) (5)	11	11	4	18	36	12			29	63	0	4	4	4	75
VOCs & MTBE (EPA 8260b)	16	16	0	25	50	0			41	66	4	4	4	4	82
Cyanide (EPA 9010)	0	0	0	1	2	0			1	2	0	1	1	4	8
ETPH (CTETPH)	15	15	0	24	48	0			39	63	0	3	3	4	73
Asbestos	8	8	0	0	0	0			8	8	0	2	2	2	14
Total CTDEP 15 Metals (EPA 6000/7000)	12	12	4	19	38	12			31	66	0	4	4	4	78
- arsenic and thallium by graphite furnace															
Lead (EPA 6000)	8	8	2	0	0	0			8	10	0	1	1	1	13
Groundwater Evaluation															
Polynuclear Aromatic Hydrocarbons (8270c) (5)							7	7	7	7	0	1	1	1	10
VOCs & MTBE (EPA 8260b)							10	10	10	10	1	1	1	1	14
Cyanide (EPA 9010)							3	3	3	3	0	1	1	1	6
ETPH (CTETPH)							9	9	9	9	0	1	1	1	12
Total CTDEP 15 Metals (EPA 6000/7000)							8	8	8	8	0	1	1	1	11

Notes:
* Number of locations
1. The number of samples submitted for laboratory analysis.
2. Trip blanks will be submitted with each batch of samples for volatile organic analysis. Generally, one per day.
3. Equipment blanks will be submitted 1 per 20 samples.
4. Field duplicates will be submitted 1 per 20 samples.
5. A silica gel cleanup and selected ion monitoring (SIM) mode will be utilized for PAH analysis, where appropriate.

X:\60004878 (Factory H)\Phase II and III\Report Tables\Revised report tables\[Table 2 revised 12-14-06.xls]Analytical Summary Table

TABLE 3 - DRAFT
GROUNDWATER AND SURFACEWATER LEVELS
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC.

	MW-1	MW-3	MW-8	MW-10	MW-11	MW-12	MW-13	MW-14	AOC-3	AOC-11	AOC-15	AOC-19	AOC-24	AOC-30	MW-100	MW-101	MW-102	MW-103	MW-104	MW-105	MW-106	MW-107	Cooper St	Cooper St	Footbridge	Footbridge
Date measured	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	5/10/2006	11/29/2006	11/29/2006	11/29/2006	11/29/2006	11/29/2006	11/29/2006	11/29/2006	11/29/2006	11/22/2006	11/30/2006	11/22/2006	11/30/2006
Reference Elevation	150.02	142.16	140.69	146.35	143.71	143.2	141.09	138.82	142.72	140.29	139.98	142.84	139.21	140.85	150.04	149.94	148.68	147.93	146.36	144.8	143.19	142.59	145.01	145.01	142.07	142.07
Depth for water	13.71	9.79	8.34	12.11	8.34	8.74	7.24	6.25	10.41	9.2	7.06	10.25	3.98	9.55	15.08	15.03	13.97	13.23	11.85	10.47	9.54	10.08	13.75	13.7	9.58	9.5
Water elevation	136.31	132.37	132.35	134.24	135.37	134.46	133.85	132.57	132.31	131.09	132.92	132.59	135.23	131.3	134.96	134.91	134.71	134.7	134.51	134.33	133.65	132.51	131.26	131.31	132.49	132.57

Notes: Groundwater measurements referenced from top of well pipe riser; surface water from bridge surface

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC-1 AOC-1-SB1 4-6	AOC-1 AOC-1-SB1 6-6	AOC-1 AOC-1-SB2 2-4	AOC-1 AOC-1-SB2 8-10	AOC-1 AOC-1-SB2 10-12	AOC-1 AOC-1-SB3 0-2	AOC-1 AOC-1-SB3 10-12	AOC-2 AOC-2-SS1	AOC-2 AOC-2-SB1 5.5-6	AOC-2 AOC-2-SB1 6-8
Sampling Date	-			3/29/06	3/29/06	3/31/06	3/31/06	3/31/06	3/29/06	3/29/06	3/29/06	3/29/06	3/31/06
Sample Depth (feet)				4-6	6	2-4	8-10	10-12	0-2	10-12	0-0.5	5.5-6	6-8
Laboratory Report Number				LIMS-96358, LIMS-96662	LIMS-96358, LIMS-96662	LIMS-96388, LIMS-96698	LIMS-96388	LIMS-96388	LIMS-96358, LIMS-96679, LIMS-	LIMS-96359	LIMS-96358, LIMS-96679, LIMS-	LIMS-96358	LIMS-96388, LIMS-96698
VOCs - MASS													
8260 dry weight (mg/kg dry wt)													
Acrylonitrile	11	1.1	0.10	<0.020*	<0.040* UJ	<0.023*	<4.7*	<0.019*	<0.017*	<0.018*	<0.012*	<0.021*	<3.7*
tert-Amylmethyl Ether	~	~	~	<0.001	<0.002 UJ	<0.001	<0.24	<0.001	<0.001	<0.001	<0.001	<0.002	<0.19
Benzene	200	21	0.20	<0.002	<0.004 UJ	<0.002	<0.47*	<0.002	0.008	<0.002	<0.001	<0.003	<0.37*
Bromodichloromethane	92	9.9	0.11	<0.002	<0.004 UJ	<0.002	<0.47*	<0.002	<0.002	<0.002	<0.001	<0.003	<0.37*
Bromomethane	1,000	95	2.0	<0.010	<0.020 UJ	<0.012	<2.4*	<0.010	<0.009	<0.009	<0.006	<0.011	<1.9
n-Butylbenzene	1,000	500	14	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.049	17 J
sec-Butylbenzene	1,000	500	14	<0.002	<0.004 UJ	<0.002	<0.47	0.003	<0.002	<0.002	<0.001	0.022	9.1 J
tert-Butylbenzene	1,000	500	14	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.006	0.83
Carbon Tetrachloride	44	4.7	1.0	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	<0.003	<0.37*
Chlorodibromomethane	68	7.3	0.10	<0.001	<0.002 UJ	<0.001	<0.24*	<0.001	<0.001	<0.001	<0.001	<0.002	<0.19*
Chloroform	940	100	1.2	<0.004	<0.008 UJ	<0.005	<0.94	<0.004	<0.004	<0.004	<0.002	<0.005	<0.73
Chloromethane	440	47	0.54	<0.010	<0.020 UJ	<0.012	<2.4*	<0.010	<0.009	<0.009	<0.006	<0.011	<1.9* UJ
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.002	<0.004 UJ	<0.002	<0.47*	<0.002	<0.002	<0.002	<0.001	<0.003	<0.37
1,2-Dibromoethane	0.067	0.007	~	<0.001	<0.002 UJ	<0.001	<0.24*	<0.001	<0.001	<0.001	<0.001	<0.002	<0.19*
cis-1,2-Dichloroethylene	1,000	500	14	<0.002	0.017 J	<0.002	0.80	0.031	<0.002	<0.002	<0.001	<0.003	0.71
1,2-Dichloropropane	84	9.0	1.0	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	<0.003	<0.37
1,3-Dichloropropane	~	~	0.1	<0.001	<0.002 UJ	<0.001	<0.24	<0.001	<0.001	<0.001	<0.001	<0.002	<0.19
Ethyl Benzene	1,000	500	10	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.002	2.4 J
Isopropylbenzene	1,000	500	130	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.007	3.5 J
p-Isopropyltoluene	1,000	500	14	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.013	15
Methylene Chloride	760	82	1.0	<0.020	<0.040 UJ	<0.023	<4.7*	<0.019	0.029	<0.018	<0.012	<0.021	<3.7*
Naphthalene	2,500	1,000	56	<0.010	<0.020 UJ	<0.012	<2.4	<0.010	0.023	<0.009	<0.006	<0.011	21 J
n-Propylbenzene	1,000	500	14	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.008	5.6 J
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.002	<0.004 UJ	<0.002	<0.47*	<0.002	<0.002	<0.002	<0.001	<0.003	<0.37*
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.001	<0.002 UJ	<0.001	<0.24*	<0.001	<0.001	<0.001	<0.001	<0.002	<0.19*
Tetrachloroethylene	110	12	1.0	0.024 J	11 J	0.003	0.63	<0.002	0.002 J	<0.002	<0.001	<0.003	<0.37
Toluene	1,000	500	67	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	0.002	<0.002	<0.001	<0.003	0.65
Trichloroethylene	520	56	1.0	0.010	8.6 J	0.027	<0.47	0.005	<0.002	<0.002	<0.001	0.035	<0.37
1,2,4-Trimethylbenzene	1,000	500	70	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	0.003	<0.002	<0.001	0.086	37 J
1,3,5-Trimethylbenzene	1,000	500	70	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.093	17
Vinyl Chloride	3.0	0.32	0.40	<0.010	<0.020 UJ	<0.012	<2.4*	<0.010	<0.009	<0.009	<0.006	<0.011	<1.9* J
m + p Xylene	1,000	500	20	<0.004	<0.008 UJ	<0.005	<0.94	<0.004	<0.004	<0.004	<0.002	0.007	5.0 J
o-Xylene	1,000	500	20	<0.002	<0.004 UJ	<0.002	<0.47	<0.002	<0.002	<0.002	<0.001	0.005	3.1
VOCs - (self-implementing)													
splp 8260 (ug/l)			GWPC X 10										
Acetone	~	~	7000	NT	<5.0	NT	NT	NT	NT	NT	NT	NT	15.6
n-Butylbenzene	~	~	610	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	12.7
tert-Butylbenzene	~	~	610	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	1.8
Carbon Disulfide	~	~	7000	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	0.9
cis-1,2-Dichloroethylene	~	~	700	NT	0.9	NT	NT	NT	NT	NT	NT	NT	<0.5
p-Isopropyltoluene	~	~	700	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	7.7
Methylene Chloride	~	~	50	NT	18.1	NT	NT	NT	NT	NT	NT	NT	9.7
Naphthalene	~	~	2800	NT	<2.0	NT	NT	NT	NT	NT	NT	NT	4.1
Tetrachloroethylene	~	~	50	NT	15.8	NT	NT	NT	NT	NT	NT	NT	<0.5
Trichloroethylene	~	~	50	NT	10.5	NT	NT	NT	NT	NT	NT	NT	<0.5
1,2,4-Trimethylbenzene	~	~	3500	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	1.2
1,3,5-Trimethylbenzene	~	~	3500	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	59.4
Vinyl Chloride	~	~	20	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	0.8
o-Xylene	~	~	5300	NT	<0.5	NT	NT	NT	NT	NT	NT	NT	8.6
METALS - TOTAL (mg/kg)			PMC X 20 (screening)										
ag (mg/kg)dw icp (mg/kg dry wt) Silver	10,000	340	7.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
as (mg/kg)dw icp (mg/kg dry wt) Arsenic	10.0	10.0	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ba (mg/kg)dw icp (mg/kg dry wt) Barium	140,000	4,700	200.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
be (mg/kg)dw icp (mg/kg dry wt) Beryllium	2.00	2.00	0.80	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cd (mg/kg)dw icp (mg/kg dry wt) Cadmium	1,000	34.0	1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cr (mg/kg)dw icp (mg/kg dry wt) Chromium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cu (mg/kg)dw icp (mg/kg dry wt) Copper	76,000	2,560	260.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
hg (mg/kg) dw (mg/kg dry wt) Mercury	610	20.0	0.40	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
ni (mg/kg)dw icp (mg/kg dry wt) Nickel	7,500	1,400	20.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
pb (mg/kg)dw icp (mg/kg dry wt) Lead	1,000	400	3.00	NT	NT	NT	NT	NT	131	NT	17.9	NT	NT
sb (mg/kg)dw icp (mg/kg dry wt) Antimony	8,200	27.0	1.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
v (mg/kg)dw icp (mg/kg dry wt) Vanadium	14,000	470	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
zn (mg/kg)dw icp (mg/kg dry wt) Zinc	610,000	20,000	1000.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC-1 AOC-1 SB1 4-6	AOC-1 AOC-1-SB1 6-6	AOC-1 AOC-1-SB2 2-4	AOC-1 AOC-1-SB2 8-10	AOC-1 AOC-1-SB2 10-12	AOC-1 AOC-1-SB3 0-2	AOC-1 AOC-1-SB3 10-12	AOC-2 AOC-2-SS1	AOC-2 AOC-2-SB1 5.5-6	AOC-2 AOC-2-SB1 6-8
Sampling Date				3/29/06	3/29/06	3/31/06	3/31/06	3/31/06	3/29/06	3/29/06	3/29/06	3/29/06	3/31/06
Sample Depth (feet)				4-6	6	2-4	8-10	10-12	0-2	10-12	0-0.5	5.5-6	6-8
Laboratory Report Number				LIMS-96358, LIMS-96662	LIMS-96358, LIMS-96662	LIMS-96388, LIMS-96698	LIMS-96388	LIMS-96388	LIMS-96358, LIMS-96679, LIMS-	LIMS-96359	LIMS-96358, LIMS-96679, LIMS-	LIMS-96358	LIMS-96388, LIMS-96698
METALS - (SPLP)													
splp - beryllium (mg/l)													
Beryllium	~	~	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - cd low (mg/l leachate)													
Cadmium	~	~	0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - chromium (mg/l leachate)													
Chromium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - copper (mg/l leachate)													
Copper	~	~	13.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - lead icp (mg/l leachate)													
Lead	~	~	0.15	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - nickel (mg/l leachate)													
Nickel	~	~	1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - sb furn (mg/l)													
Antimony	~	~	0.06	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - silver (mg/l leachate)													
Silver	~	~	0.36	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - tl furn (mg/l)													
Thallium	~	~	0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - vanadium (mg/l leachate)													
Vanadium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp barium icp (mg/l leachate)													
Barium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp mercury (mg/l leachate)													
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - MASS													
pah - sludge (mg/kg dry wt)													
Acenaphthene	2,500	1,000	84	<3.63	<0.26	<0.20	<6.11	<0.40	22.9	<0.20	<1.81	<0.21	<1.07
Acenaphthylene	2,500	1,000	84	3.96	<0.26	1.11	<6.11	<0.40	6.28	<0.20	3.59	<0.21	<1.07
Anthracene	2,500	1,000	400	10.7	<0.26	1.42	<6.11	<0.40	67.4	<0.20	6.24	0.24	<1.07
Benzo(a)anthracene	7.80	1.00	1	**36.0**	<0.26	**7.74**	<6.11*	<0.40	**58.9**	<0.20	**21.6**	**1.34**	<1.07*
Benzo(a)pyrene	1.00	1.00	1	**21.3**	<0.26	**7.08**	<6.11*	<0.40	**43.3**	<0.20	**15.3**	**1.22**	<1.07*
Benzo(b)fluoranthene	7.80	1.00	1	**26.7**	0.28	**2.49**	<6.11*	<0.40	**58.2**	<0.20	**23.7**	**1.71**	<1.07*
Benzo(g,h,i)perylene	2,500	1,000	42	10.8	<0.26	2.27	<6.11	<0.40	20.5	<0.20	8.49	0.76	<1.07
Benzo(k)fluoranthene	78.0	8.40	1	**8.36**	<0.26	**2.19**	<6.11*	<0.40	**19.4**	<0.20	**8.69**	0.63	<1.07*
Chrysene	780	84.0	1	**33.0**	<0.26	**8.21**	<6.11*	<0.40	**52.6**	<0.20	**23.1**	**1.32**	<1.07*
Dibenz(a,h)anthracene	1.00	1.00	1	<3.63*	<0.26	0.85	<6.11*	<0.40	**7.32**	<0.20	**3.43**	0.26	<1.07*
Fluoranthene	2,500	1,000	56	30.6	0.54	16.7	<6.11	0.45	**226**	<0.20	35.5	1.82	<1.07
Fluorene	2,500	1,000	56	<3.63	<0.26	0.46	<6.11	<0.40	37.3	<0.20	1.85	<0.21	<1.07
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	**13.4**	<0.26	**2.96**	<6.11*	<0.40	**24.3**	<0.20	**10.3**	0.86	<1.07*
2-Methylnaphthalene	2,500	474	9.8	<3.63	<0.26	0.21	<6.11	<0.40	**23.7**	<0.20	<1.81	1.12	3.36
Naphthalene	2,500	1,000	56	3.79	<0.26	0.58	<6.11	<0.40	38.7	<0.20	<1.81	0.56	2.03
Phenanthrene	2,500	1,000	40	24.8	<0.26	8.91	<6.11	<0.40	**286**	<0.20	25.0	0.71	<1.07
Pyrene	2,500	1,000	40	**69.2**	0.46	15.7	<6.11	0.58	**197**	<0.20	**41.3**	1.86	<1.07
PAHs - (self-implementing)													
splp - pah (ug/l)			GWPC X 10										
Acenaphthene	~	~	4200	<0.30	NT	<0.30	NT	NT	50.2	NT	1.00	NT	NT
Acenaphthylene	~	~	4200	<0.30	NT	<0.30	NT	NT	1.82	NT	0.51	NT	NT
Anthracene	~	~	20000	<0.20	NT	<0.20	NT	NT	13.6	NT	10.5	NT	NT
Benzo(a)anthracene	~	~	0.6	<0.050	NT	0.260	NT	NT	<0.050	NT	0.460	NT	NT
Benzo(a)pyrene	~	~	2.0	<0.100	NT	0.270	NT	NT	<0.100	NT	<0.100	NT	NT
Benzo(b)fluoranthene	~	~	0.8	<0.050	NT	0.260	NT	NT	<0.050	NT	<0.050	NT	NT
Benzo(g,h,i)perylene	~	~	2100	<0.500	NT	<0.500	NT	NT	<0.500	NT	<0.500	NT	NT
Benzo(k)fluoranthene	~	~	5.0	<0.200	NT	0.320	NT	NT	<0.200	NT	<0.200	NT	NT
Chrysene	~	~	48	<0.20	NT	0.32	NT	NT	<0.20	NT	0.53	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	<0.500	NT	<0.500	NT	NT	<0.500	NT	<0.500	NT	NT
Fluoranthene	~	~	2800	<0.50	NT	<0.50	NT	NT	13.2	NT	6.24	NT	NT
Fluorene	~	~	2800	<1.00	NT	<1.00	NT	NT	53.9	NT	1.18	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	<0.500	NT	<0.500	NT	NT	<0.500	NT	<0.500	NT	NT
2-Methylnaphthalene	~	~	49	<1.00	NT	<1.00	NT	NT	8.44	NT	<1.00	NT	NT
Naphthalene	~	~	2800	<1.00	NT	<1.00	NT	NT	<1.00	NT	<1.00	NT	NT
Phenanthrene	~	~	2000	<0.10	NT	<0.10	NT	NT	72.7	NT	10.5	NT	NT
Pyrene	~	~	2000	<1.00	NT	<1.00	NT	NT	7.36	NT	3.45	NT	NT
Method 600/R-93/116													
Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cyanide-tot sldg (mg/kg dry wt)													
Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)													
Extractable TPH (ETPH)	2,500	500	2500	440	18 J	180	4,000	330	1,900	<12	930	290	6,300
solids (percent) (%)													
Solids, total	~	~	~	91.9	64.9	84.4	68.3	83.6	87.8	83.5	92.5	80.0	78.0

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ND = Not detected above the laboratory reporting limit
4. ~ = No Standard available
5. RSR criteria are in same units as analyte.
6. ** indicates a concentrations which would be considered hazardous based on toxicity
7. Bold cell boarders indicate a GB PMC and/or GB PMC X 20 exceedance
8. Shaded cells indicate a R DEC and/or I/C DEC exceedance
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-3		AOC-5					AOC-RB1	AOC-RB2	AOC-10	
	I/C DEC	R DEC	GB PMC	AOC-3-SB/MW01 2-4	AOC-3-SB/MW01 6-8	AOC-5-SS1	AOC-5-SB1 2-4	AOC-5-SB1 10-12	AOC-5-SB2 2-4	AOC-05-SB2 9-11	AOC-RB1 2-4	AOC-RB2 2-4	AOC10-SS-1	AOC10-SS-2MS/MSD
Sampling Date				3/30/06	3/30/06	3/29/06	3/29/06	3/31/06	3/29/06	3/31/06	3/31/06	3/31/06	3/31/06	3/31/06
Sample Depth (feet)				2-4	6-8	0-0.5	2-4	10-12	2-4	9-11	2-4	2-4	0-0.5	0-0.5
Laboratory Report Number				LIMS-96357, LIMS-96668	LIMS-96357	LIMS-96358	LIMS-96358	LIMS-96388	LIMS-96358, LIMS-96679, LIMS-	LIMS-96392	LIMS-96388	LIMS-96388	LIMS-96392	LIMS-96392, LIMS-96737
VOCs - MASS														
8260 dry weight (mg/kg dry wt)														
Acrylonitrile	11	1.1	0.10	<0.015*	<0.019*	<0.020*	<0.015*	<0.016*	<0.011*	<3.2*	<0.024*	<0.013*	NT	NT
tert-Amylmethyl Ether	~	~	~	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.16	<0.002	<0.001	NT	NT
Benzene	200	21	0.20	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.32*	<0.003	<0.001	NT	NT
Bromodichloromethane	92	9.9	0.11	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32*	<0.003	<0.001	NT	NT
Bromomethane	1,000	95	2.0	<0.008	<0.010	<0.010	<0.008	<0.008	<0.006	<1.6	<0.012	<0.006	NT	NT
n-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	1.2	<0.003	<0.001	NT	NT
sec-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	1.3	<0.003	<0.001	NT	NT
tert-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Carbon Tetrachloride	44	4.7	1.0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Chlorodibromomethane	68	7.3	0.10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.16*	<0.002	<0.001	NT	NT
Chloroform	940	100	1.2	<0.003	<0.004	<0.004	<0.003	<0.004	<0.003	<0.64	<0.005	<0.003	NT	NT
Chloromethane	440	47	0.54	<0.008	<0.010	<0.010	<0.008	<0.008	<0.006	<1.6*	<0.012	<0.006	NT	NT
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
1,2-Dibromoethane	0.067	0.007	~	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.16*	<0.002	<0.001	NT	NT
cis-1,2-Dichloroethylene	1,000	500	14	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
1,2-Dichloropropane	84	9.0	1.0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
1,3-Dichloropropane	~	~	0.1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.16	<0.002	<0.001	NT	NT
Ethyl Benzene	1,000	500	10	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Isopropylbenzene	1,000	500	130	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
p-Isopropyltoluene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Methylene Chloride	760	82	1.0	<0.015	<0.019	<0.020	<0.015	<0.016	<0.011	<3.2*	<0.024	<0.013	NT	NT
Naphthalene	2,500	1,000	56	<0.008	<0.010	<0.010	<0.008	<0.008	<0.006	<1.6	<0.012	<0.006	NT	NT
n-Propylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.37	<0.003	<0.001	NT	NT
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32*	<0.003	<0.001	NT	NT
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.16*	<0.002	<0.001	NT	NT
Tetrachloroethylene	110	12	1.0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Toluene	1,000	500	67	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Trichloroethylene	520	56	1.0	<0.002	<0.002	<0.002	<0.002	0.003	0.002	<0.32	<0.003	0.003	NT	NT
1,2,4-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
1,3,5-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
Vinyl Chloride	3.0	0.32	0.40	<0.008	<0.010	<0.010	<0.008	<0.008	<0.006	<1.6*	<0.012	<0.006	NT	NT
m + p Xylene	1,000	500	20	<0.003	<0.004	<0.004	<0.003	<0.004	<0.003	<0.64	<0.005	<0.003	NT	NT
o-Xylene	1,000	500	20	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.32	<0.003	<0.001	NT	NT
VOCs - (self-implementing)														
splp 8260 (ug/l)			**GWPC X 10**											
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
METALS - TOTAL (mg/kg)			**PMC X 20 (screening)**											
ag (mg/kg)dw icp (mg/kg dry wt)														
Silver	10,000	340	7.20	1.89	0.73	NT	NT	NT	**12.7** J	2.11	NT	NT	NT	**19.8**
as (mg/kg)dw icp (mg/kg dry wt)														
Arsenic	10.0	10.0	10.00	<5.51	<6.02	NT	NT	NT	<5.52	<6.31	NT	NT	NT	<6.31
ba (mg/kg)dw icp (mg/kg dry wt)														
Barium	140,000	4,700	200.00	47.1	84.7	NT	NT	NT	65.0	110	NT	NT	NT	120
be (mg/kg)dw icp (mg/kg dry wt)														
Beryllium	2.00	2.00	0.80	0.29	0.32	NT	NT	NT	0.37	0.41	NT	NT	NT	0.49
cd (mg/kg)dw icp (mg/kg dry wt)														
Cadmium	1,000	34.0	1.00	<0.56	<0.61	NT	NT	NT	<0.56	<0.64	NT	NT	NT	0.92
cr (mg/kg)dw icp (mg/kg dry wt)														
Chromium	~	~	10.00	**12.6**	**14.1**	NT	NT	NT	7.80	**16.4**	NT	NT	NT	**96.1**
cu (mg/kg)dw icp (mg/kg dry wt)														
Copper	76,000	2,500	260.00	34.3	18.0	NT	NT	NT	**1,190** J	68.5	NT	NT	NT	**481**
hg (mg/kg) dw (mg/kg dry wt)														
Mercury	610	20.0	0.40	0.023	0.029	NT	NT	NT	0.188	0.111	NT	NT	NT	0.209
ni (mg/kg)dw icp (mg/kg dry wt)														
Nickel	7,500	1,400	20.00	12.0	12.7	NT	NT	NT	**348**	18.0	NT	NT	NT	**51.3**
pb (mg/kg)dw icp (mg/kg dry wt)														
Lead	1,000	400	3.00	**13.5**	**5.70**	NT	NT	NT	**107**	**17.0**	NT	NT	**6.75**	**208**
sb (mg/kg)dw icp (mg/kg dry wt)														
Antimony	8,200	27.0	1.20	<4.41*	<4.82*	NT	NT	NT	<4.41* UJ	<5.05*	NT	NT	NT	<5.05*
v (mg/kg)dw icp (mg/kg dry wt)														
Vanadium	14,000	470	10.00	**25.6**	**27.6**	NT	NT	NT	**28.7**	**30.6**	NT	NT	NT	**37.4**
zn (mg/kg)dw icp (mg/kg dry wt)														
Zinc	610,000	20,000	1000.00	32.3	34.8	NT	NT	NT	435	58.4	NT	NT	NT	222

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-3		AOC-5					AOC-RB1	AOC-RB2	AOC-10	
	I/C DEC	R DEC	GB PMC	AOC-3-SB/MW01 2-4	AOC-3-SB/MW01 6-8	AOC-5-SS1	AOC-5-SB1 2-4	AOC-5-SB1 10-12	AOC-5-SB2 2-4	AOC-05-SB2 9-11	AOC-RB1 2-4	AOC-RB2 2-4	AOC10-SS-1	AOC10-SS-2MS/MSD
Sampling Date				3/30/06	3/30/06	3/29/06	3/29/06	3/31/06	3/29/06	3/31/06	3/31/06	3/31/06	3/31/06	3/31/06
Sample Depth (feet)				2-4	6-8	0-0.5	2-4	10-12	2-4	9-11	2-4	2-4	0-0.5	0-0.5
Laboratory Report Number				LIMS-96357, LIMS-96668	LIMS-96357	LIMS-96358	LIMS-96358	LIMS-96388	LIMS-96358, LIMS-96679, LIMS-	LIMS-96392	LIMS-96388	LIMS-96388	LIMS-96392	LIMS-96392, LIMS-96737
METALS - (SPLP)														
splp - beryllium (mg/l)														
Beryllium	~	~	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - cd low (mg/l leachate)														
Cadmium	~	~	0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - chromium (mg/l leachate)														
Chromium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.03
splp - copper (mg/l leachate)														
Copper	~	~	13.00	NT	NT	NT	NT	NT	2.91	NT	NT	NT	NT	0.09
splp - lead icp (mg/l leachate)														
Lead	~	~	0.15	0.01	NT	NT	NT	NT	0.08	NT	NT	NT	NT	0.02
splp - nickel (mg/l leachate)														
Nickel	~	~	1.00	NT	NT	NT	NT	NT	0.38	NT	NT	NT	NT	<0.03
splp - sb furn (mg/l)														
Antimony	~	~	0.06	NT	NT	NT	NT	NT	0.0114	NT	NT	NT	NT	NT
splp - silver (mg/l leachate)														
Silver	~	~	0.36	NT	NT	NT	NT	NT	**<0.05***	NT	NT	NT	NT	<0.03
splp - tl furn (mg/l)														
Thallium	~	~	0.05	NT	NT	NT	NT	NT	<0.0005	NT	NT	NT	NT	NT
splp - vanadium (mg/l leachate)														
Vanadium	~	~	0.50	NT	NT	NT	NT	NT	<0.05	NT	NT	NT	NT	NT
splp barium icp (mg/l leachate)														
Barium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp mercury (mg/l leachate)														
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - MASS														
pah - sludge (mg/kg dry wt)														
Acenaphthene	2,500	1,000	84	<0.18	<0.20	<3.77	<0.38	<0.19	<0.37	<0.22	<0.26 UJ	<0.21	NT	<0.22
Acenaphthylene	2,500	1,000	84	<0.18	<0.20	<3.77	0.80	<0.19	4.93	<0.22	<0.26 UJ	<0.21	NT	0.22
Anthracene	2,500	1,000	400	<0.18	<0.20	5.86	1.72	<0.19	3.30	<0.22	<0.26 UJ	0.33	NT	<0.22
Benzo(a)anthracene	7.80	1.00	1	<0.18	<0.20	**19.1**	**3.96**	<0.19	**18.4**	0.28	<0.26 UJ	0.31	NT	0.67
Benzo(a)pyrene	1.00	1.00	1	<0.18	<0.20	**13.8**	**3.95**	<0.19	**16.6**	<0.22	<0.26 UJ	0.32	NT	0.76
Benzo(b)fluoranthene	7.80	1.00	1	<0.18	<0.20	**19.1**	**8.16**	<0.19	**27.1**	0.28	<0.26 UJ	0.43	NT	**1.08**
Benzo(g,h,i)perylene	2,500	1,000	42	<0.18	<0.20	6.03	2.11	<0.19	5.48	<0.22	<0.26 UJ	0.24	NT	0.52
Benzo(k)fluoranthene	78.0	8.40	1	<0.18	<0.20	**8.12**	**2.2**	<0.19	**7.48**	<0.22	<0.26 UJ	<0.21	NT	0.46
Chrysene	780	84.0	1	<0.18	<0.20	**21.3**	**4.12**	<0.19	**21.9**	0.25	<0.26 UJ	0.35	NT	0.90
Dibenz(a,h)anthracene	1.00	1.00	1	<0.18	<0.20	<3.77*	0.76	<0.19	**2.38**	<0.22	<0.26 UJ	<0.21	NT	<0.22
Fluoranthene	2,500	1,000	56	<0.18	<0.20	32.1	8.75	<0.19	33.1	0.37	0.30 J	0.67	NT	1.36
Fluorene	2,500	1,000	56	<0.18	<0.20	<3.77	1.00	<0.19	2.03	<0.22	<0.26 UJ	<0.21	NT	<0.22
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	<0.18	<0.20	**6.57**	**2.52**	<0.19	**7.4**	<0.22	<0.26 UJ	0.23	NT	0.54
2-Methylnaphthalene	2,500	474	9.8	<0.18	<0.20	<3.77	<0.38	<0.19	0.53	0.54	<0.26 UJ	<0.21	NT	<0.22
Naphthalene	2,500	1,000	56	<0.18	<0.20	<3.77	<0.38	<0.19	0.63	<0.22	<0.26 UJ	<0.21	NT	<0.22
Phenanthrene	2,500	1,000	40	<0.18	<0.20	26.0	7.61	<0.19	16.0	<0.22	<0.26 UJ	0.33	NT	0.75
Pyrene	2,500	1,000	40	<0.18	<0.20	37.7	8.74	<0.19	38.7	0.40	0.30 J	0.65	NT	1.41
PAHs - (self-implementing)														
splp - pah (ug/l)			GWPC X 10											
Acenaphthene	~	~	4200	NT	NT	NT	NT	NT	1.36	NT	NT	NT	NT	NT
Acenaphthylene	~	~	4200	NT	NT	NT	NT	NT	8.07	NT	NT	NT	NT	NT
Anthracene	~	~	20000	NT	NT	NT	NT	NT	1.01	NT	NT	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	NT	NT	NT	NT	NT	<0.050	NT	NT	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	NT	NT	NT	NT	NT	<0.100	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	NT	NT	NT	NT	NT	<0.050	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	NT	NT	NT	NT	NT	<0.500	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	NT	NT	NT	NT	NT	<0.200	NT	NT	NT	NT	NT
Chrysene	~	~	48	NT	NT	NT	NT	NT	<0.20	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	NT	NT	NT	NT	NT	<0.500	NT	NT	NT	NT	NT
Fluoranthene	~	~	2800	NT	NT	NT	NT	NT	2.17	NT	NT	NT	NT	NT
Fluorene	~	~	2800	NT	NT	NT	NT	NT	11.0	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	NT	NT	NT	NT	NT	<0.500	NT	NT	NT	NT	NT
2-Methylnaphthalene	~	~	49	NT	NT	NT	NT	NT	1.59	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	<1.00	NT	NT	NT	NT	NT
Phenanthrene	~	~	2000	NT	NT	NT	NT	NT	3.47	NT	NT	NT	NT	NT
Pyrene	~	~	2000	NT	NT	NT	NT	NT	1.30	NT	NT	NT	NT	NT
Method 600/R-93/116														
Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	ND	Anosite - trace
cyanide-tot sldg (mg/kg dry wt)														
Cyanide - None detected	41000	1400	~	<0.63	<0.67	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)														
Extractable TPH (ETPH)	2,500	500	2500	43	44	1,600	190	36	590	2,300	170	140	NT	270
solids (percent) (%)														
Solids, total	~	~	~	90.8	83.1	88.5	89.4	89.0	90.7	79.3	64.9	79.5	88.9	79.3

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC 11 AOC-11SS -1DUP	AOC-11SS1 MS/MSD	AOC-11SS2	AOC-11SB2 2-4	AOC-11SB2 8-10	AOC-11-MW1 4-6	AOC-11-MW1 8-10	AOC-13 AOC-13 SS1	AOC-13 SB1 2-4	AOC-13-SB1 4-6
Sampling Date				3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/29/06	3/29/06	3/29/06
Sample Depth (feet)				0-0.5	0-0.5	0-0.5	2-4	8-10	4-6	8-10	0-0.5	2-4	4-6
Laboratory Report Number				LIMS-96357, LIMS-96668	LIMS-96357	LIMS-96357, LIMS-96668	LIMS-96357, LIMS-96668	LIMS-96357, LIMS-96668	LIMS-96356, LIMS-96679	LIMS-96356	LIMS-96358	LIMS-96358	LIMS-96359, LIMS-96668
VOCs - MASS													
8260 dry weight (mg/kg dry wt)													
Acrylonitrile	11	1.1	0.10	<0.018*	<0.020*	<0.020*	<0.018*	<0.023*	<0.022*	<0.024*	<0.018*	<0.025*	<0.019*
tert-Amylmethyl Ether	~	~	~	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.001
Benzene	200	21	0.20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Bromodichloromethane	92	9.9	0.11	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Bromomethane	1,000	95	2.0	<0.009	<0.010	<0.010	<0.009	<0.012	<0.011	<0.012	<0.009	<0.013	<0.010
n-Butylbenzene	1,000	500	14	<0.002	<0.002 UJ	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
sec-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
tert-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Carbon Tetrachloride	44	4.7	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Chlorodibromomethane	68	7.3	0.10	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.001
Chloroform	940	100	1.2	<0.004	<0.004	<0.004	<0.004	<0.005	<0.004	<0.005	<0.004	<0.005	<0.004
Chloromethane	440	47	0.54	<0.009	<0.010 UJ	<0.010	<0.009	<0.012	<0.011	<0.012	<0.009	<0.013	<0.010
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,2-Dibromoethane	0.067	0.007	~	<0.001	<0.001 UJ	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.001
cis-1,2-Dichloroethylene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,2-Dichloropropane	84	9.0	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,3-Dichloropropane	~	~	0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.001
Ethyl Benzene	1,000	500	10	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Isopropylbenzene	1,000	500	130	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
p-Isopropyltoluene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Methylene Chloride	760	82	1.0	<0.018	<0.020 UJ	<0.020	<0.018	<0.023	<0.022 UJ	<0.024 UJ	<0.018	0.077	<0.019
Naphthalene	2,500	1,000	56	<0.009	<0.010 UJ	<0.010	<0.009	<0.012	<0.011	<0.012	<0.009	<0.013	<0.010
n-Propylbenzene	1,000	500	14	<0.002	<0.002 UJ	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.002	<0.001	<0.002	<0.001
Tetrachloroethylene	110	12	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Toluene	1,000	500	67	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Trichloroethylene	520	56	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,2,4-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
1,3,5-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
Vinyl Chloride	3.0	0.32	0.40	<0.009	<0.010 UJ	<0.010	<0.009	<0.012	<0.011	<0.012	<0.009	<0.013	<0.010
m + p Xylene	1,000	500	20	<0.004	<0.004	<0.004	<0.004	<0.005	<0.004	<0.005	<0.004	<0.005	<0.004
o-Xylene	1,000	500	20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003	<0.002
VOCs - (self-implementing)													
splp 8260 (ug/l)			GWPC X 10										
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
METALS - TOTAL (mg/kg)			**PMC X 20 (screening)**										
ag (mg/kg)dw icp (mg/kg dry wt)													
Silver	10,000	340	7.20	6.03 J	**15.4** J	0.84	2.00	<0.65	<0.66	<0.65	<0.56	<0.67	<0.56
as (mg/kg)dw icp (mg/kg dry wt)													
Arsenic	10.0	10.0	10.00	<5.70	<5.81	<5.38	<5.83	<6.41	<6.59	<6.45	<5.58	<6.63	<5.56
ba (mg/kg)dw icp (mg/kg dry wt)													
Barium	140,000	4,700	200.00	83.8	91.2	109	**361**	133	**318**	116	132	**268**	102
be (mg/kg)dw icp (mg/kg dry wt)													
Beryllium	2.00	2.00	0.80	0.59	0.55	**1.26**	0.57	0.44	**0.92**	0.40	0.56	**0.84**	0.29
cd (mg/kg)dw icp (mg/kg dry wt)													
Cadmium	1,000	34.0	1.00	<0.57	<0.59	<0.54	<0.59	<0.65	<0.66	<0.65	<0.56	<0.67	<0.56
cr (mg/kg)dw icp (mg/kg dry wt)													
Chromium	~	~	10.00	**12.2**	**15.6**	**13.0**	**11.4**	**21.8**	**33.8**	**15.5**	**22.8**	**27.4**	**13.1**
cu (mg/kg)dw icp (mg/kg dry wt)													
Copper	76,000	2,500	260.00	146	194	42.0	27.1	11.7	90.5	18.2	90.5	29.2	9.03
hg (mg/kg) dw (mg/kg dry wt)													
Mercury	610	20.0	0.40	0.073	0.100	0.147	0.167	0.089	0.089	0.006	0.384	0.050	0.011
ni (mg/kg)dw icp (mg/kg dry wt)													
Nickel	7,500	1,400	20.00	**34.3**	**40.1**	16.1	9.61	10.1	**72.7**	**74.5**	12.9	15.6	8.00
pb (mg/kg)dw icp (mg/kg dry wt)													
Lead	1,000	400	3.00	**62.0** J	**105** J	**35.9**	**481**	**11.9**	**36.5**	**5.36**	**75.6**	**138**	**5.64**
sb (mg/kg)dw icp (mg/kg dry wt)													
Antimony	8,200	27.0	1.20	<4.56*	<4.65*		5.30	<5.13*	<5.27*	<5.16*	<4.47*	<5.30*	<4.45*
v (mg/kg)dw icp (mg/kg dry wt)													
Vanadium	14,000	470	10.00	**39.7**	**34.3**	**31.9**	**23.7**	**36.5**	**81.7**	**43.5**	**50.1**	**57.2**	**23.7**
zn (mg/kg)dw icp (mg/kg dry wt)													
Zinc	610,000	20,000	1000.00	95.6	121	76.0	80.8	38.4	141	130	95.4	109	24.6

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC 11							AOC-13		
	I/C DEC	R DEC	GB PMC	AOC-11SS -1DUP	AOC-11SS1 MS/MSD	AOC-11SS2	AOC-11SB2 2-4	AOC-11SB2 8-10	AOC-11-MW1 4-6	AOC-11-MW1 8-10	AOC-13 SS1	AOC-13 SB1 2-4	AOC-13-SB1 4-6
Sampling Date				3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/30/06	3/29/06	3/29/06	3/29/06
Sample Depth (feet)				0-0.5	0-0.5	0-0.5	2-4	8-10	4-6	8-10	0-0.5	2-4	4-6
Laboratory Report Number				LIMS-96357, LIMS-96668	LIMS-96357	LIMS-96357, LIMS-96668	LIMS-96357, LIMS-96668	LIMS-96357, LIMS-96668	LIMS-96356, LIMS-96679	LIMS-96356	LIMS-96358	LIMS-96358	LIMS-96359, LIMS-96668
METALS - (SPLP)													
splp - beryllium (mg/l)													
Beryllium	~	~	0.04	NT	NT	<0.0010	NT	NT	<0.0010	NT	NT	0.0021	NT
splp - cd low (mg/l leachate)													
Cadmium	~	~	0.05	NT	NT	NT	NT	NT	<0.03	NT	NT	<0.03	NT
splp - chromium (mg/l leachate)													
Chromium	~	~	0.50	<0.03	NT	NT	<0.02	<0.03	NT	NT	NT	NT	<0.03
splp - copper (mg/l leachate)													
Copper	~	~	13.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - lead icp (mg/l leachate)													
Lead	~	~	0.15	0.14	NT	NT	0.03	0.06	<0.01	NT	NT	<0.01	<0.01
splp - nickel (mg/l leachate)													
Nickel	~	~	1.00	<0.03	NT	NT	NT	NT	0.09	NT	NT	NT	NT
splp - sb furn (mg/l)													
Antimony	~	~	0.06	0.0077	NT	NT	0.0145	0.0117	0.0204	NT	NT	NT	0.0128
splp - silver (mg/l leachate)													
Silver	~	~	0.36	<0.03	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - tl furn (mg/l)													
Thallium	~	~	0.05	<0.0005	NT	NT	<0.0010	<0.0005	<0.0005	NT	NT	NT	<0.0005
splp - vanadium (mg/l leachate)													
Vanadium	~	~	0.50	<0.03	NT	NT	<0.02	0.04	<0.03	NT	NT	NT	<0.03
splp barium icp (mg/l leachate)													
Barium	~	~	10.00	NT	NT	NT	0.63	NT	1.24	NT	NT	1.28	NT
splp mercury (mg/l leachate)													
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - MASS													
peh - sludge (mg/kg dry wt)													
Acenaphthene	2,500	1,000	84	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	2,500	1,000	84	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	2,500	1,000	400	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	1.00	1.00	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	2,500	1,000	42	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	78.0	8.40	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	780	84.0	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	1.00	1.00	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	2,500	474	9.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	2,500	1,000	40	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	2,500	1,000	40	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - (self-implementing)													
splp - peh (ug/l)			GWPC X 10										
Acenaphthene	~	~	4200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	~	~	4200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	~	~	20000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	~	~	48	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	~	~	49	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	~	~	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	~	~	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Method 600/R-93/116													
Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cyanide-tot sldg (mg/kg dry wt)													
Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)													
Extractable TPH (ETPH)	2,500	500	2500	970	1,100	590	100	<13	29	<13	130	16 J	<12
solids (percent) (%)													
Solids, total	~	~	~	87.8	86.1	93.0	85.9	78.0	75.9	77.6	89.7	75.5	90.0

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC-15 AOC-15(A)-SS1	AOC-15(B)-SS2 DUP	AOC-15(B)-SS2 MS/MSD	AOC-15(B)-SS-3	AOC-15(B)-SS4	AOC-15(B)-SS-5	AOC-15(A)-SB1 2-4	AOC15(B)-SB2- 2-4	AOC-15(B)-MW3 4-6	AOC-15(B)-MW3 2-4	AOC-15(B)-SB4 2-4	AOC-15(B)-SB5 2-4
Sampling Date				3/29/06	3/31/06	3/31/06	3/30/06	3/30/06	3/30/06	3/29/06	3/31/06	3/30/06	3/30/06	3/30/06	3/30/06
Sample Depth (feet)				0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	2-4	2-4	4-6	2-4	2-4	2-4
Laboratory Report Number				LIMS-96359, LIMS-96668	LIMS-96388	LIMS-96388	LIMS-96356, LIMS-96679, LIMS-	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96359, LIMS-96668	LIMS-96388	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96356	LIMS-96356
VOCs - MASS															
8260 dry weight (mg/kg dry wt)															
Acrylonitrile	11	1.1	0.10	<0.020*	<0.019*	<0.018*	<0.019*	<0.022*	<0.019*	<0.018*	<0.019*	<0.020*	<0.018*	<0.020*	<0.018*
tert-Amylmethyl Ether	~	~	~	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Benzene	200	21	0.20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Bromodichloromethane	92	9.9	0.11	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Bromomethane	1,000	95	2.0	<0.010	<0.010	<0.009	<0.009	<0.011	<0.010	<0.009	<0.010	<0.010	<0.009	<0.010	<0.009
n-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
sec-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
tert-Butylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Carbon Tetrachloride	44	4.7	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chlorodibromomethane	68	7.3	0.10	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Chloroform	940	100	1.2	<0.004	<0.004	<0.004	<0.004	<0.005	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
Chloromethane	440	47	0.54	<0.010	<0.010	<0.009 UJ	<0.009	<0.011	<0.010	<0.009	<0.010	<0.010	<0.009	<0.010	<0.009
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,2-Dibromoethane	0.067	0.007	~	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
cis-1,2-Dichloroethylene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,2-Dichloropropane	84	9.0	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,3-Dichloropropane	~	~	0.1	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Ethyl Benzene	1,000	500	10	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Isopropylbenzene	1,000	500	130	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
p-Isopropyltoluene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Methylene Chloride	760	82	1.0	<0.020	<0.019	<0.018	<0.019 J	0.049 J	0.026 J	<0.018	<0.019	<0.020 UJ	<0.018 UJ	0.047 J	<0.018
Naphthalene	2,500	1,000	56	<0.010	<0.010	<0.009 UJ	<0.009	<0.011	<0.010	<0.009	<0.010	<0.010	<0.009	<0.010	<0.009
n-Propylbenzene	1,000	500	14	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Tetrachloroethylene	110	12	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Toluene	1,000	500	67	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trichloroethylene	520	56	1.0	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,2,4-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
1,3,5-Trimethylbenzene	1,000	500	70	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Vinyl Chloride	3.0	0.32	0.40	<0.010	<0.010	<0.009	<0.009	<0.011	<0.010	<0.009	<0.010	<0.010	<0.009	<0.010	<0.009
m + p Xylene	1,000	500	20	<0.004	<0.004	<0.004	<0.004	<0.005	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004
o-Xylene	1,000	500	20	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
VOCs - (self-implementing)															
splp 8260 (ug/l)			GWPC X 10												
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
METALS - TOTAL (mg/kg)			PMC X 20 (screening)												
ag (mg/kg)dw icp (mg/kg dry wt)															
Silver	10,000	340	7.20	4.41	5.22	**7.46**	**27.9**	3.57	2.43	<0.60	0.63	3.14	6.97	<0.61	<0.63
as (mg/kg)dw icp (mg/kg dry wt)															
Arsenic	10.0	10.0	10.00	8.04	<5.48	6.16	9.28	<6.36	<5.84	<5.97	<5.67	<5.86	<5.41	<6.06	<6.26
ba (mg/kg)dw icp (mg/kg dry wt)															
Barium	140,000	4,700	200.00	43.3	80.0	101	**243**	81.3	96.7	73.3	59.8	**216**	103	83.4	142
be (mg/kg)dw icp (mg/kg dry wt)															
Beryllium	2.00	2.00	0.80	**0.91**	0.30	0.45	0.44	0.71	0.76	0.72	0.58	0.66	0.49	0.63	0.71
cd (mg/kg)dw icp (mg/kg dry wt)															
Cadmium	1,000	34.0	1.00	<0.56	<0.55	<0.55	<0.58	<0.64	<0.59	<0.60	<0.57	<0.59	<0.55	<0.61	<0.63
cr (mg/kg)dw icp (mg/kg dry wt)															
Chromium	~	~	10.00	8.35	**11.0**	**12.1**	**25.4**	**16.9**	**20.1**	**14.2**	7.61	**44.2**	**51.7**	**17.0**	**19.9**
cu (mg/kg)dw icp (mg/kg dry wt)															
Copper	76,000	2,500	260.00	**701**	**375**	**405**	**4,110**	161	122	30.7	57.5	173	233	44.4	57.6 J
hg (mg/kg) dw (mg/kg dry wt)															
Mercury	610	20.0	0.40	0.093	0.402	0.332 J	0.334	0.070	0.212	0.038	0.031	0.162	0.141	0.040	0.257
ni (mg/kg)dw icp (mg/kg dry wt)															
Nickel	7,500	1,400	20.00	**140**	**68.0**	**63.7**	**642**	**64.4**	**42.9**	14.7	12.1	**22.6**	**24.7**	15.1	16.8
pb (mg/kg)dw icp (mg/kg dry wt)															
Lead	1,000	400	3.00	**246**	**269**	**391**	**325**	**48.1**	**69.4**	**14.4**	**29.1**	**64.7**	**134**	**28.3**	**74.2**
sb (mg/kg)dw icp (mg/kg dry wt)															
Antimony	8,200	27.0	1.20	**11.6**	<4.39*	<4.36*	**7.95**	<5.09*	<4.67*	<4.78*	<4.54*	<4.69*	<4.33*	<4.85*	<5.01* UJ
v (mg/kg)dw icp (mg/kg dry wt)															
Vanadium	14,000	470	10.00	**19.6**	**34.0**	**34.4**	**49.1**	**33.4**	**38.1**	**44.0**	**17.4**	**54.9**	**35.1**	**43.3**	**39.4**
zn (mg/kg)dw icp (mg/kg dry wt)															
Zinc	610,000	20,000	1000.00	205	162	214	842	106	134	82.6	67.7	114	142	82.5	126

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-15											
	I/C DEC	R DEC	GB PMC	AOC-15(A)-SS1	AOC-15(B)-SS2 DUP	AOC-15(B)-SS2 MS/MSD	AOC-15(B)-SS-3	AOC-15(B)-SS4	AOC-15(B)-SS-5	AOC-15(A)-SB1 2-4	AOC15(B)-SB2- 2-4	AOC-15(B)-MW3 4-6	AOC-15(B)-MW3 2-4	AOC-15(B)-SB4 2-4	AOC-15(B)-SB5 2-4
Sampling Date				3/29/06	3/31/06	3/31/06	3/30/06	3/30/06	3/30/06	3/29/06	3/31/06	3/30/06	3/30/06	3/30/06	3/30/06
Sample Depth (feet)				0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	2-4	2-4	4-6	2-4	2-4	2-4
Laboratory Report Number				LIMS-96359, LIMS-96668	LIMS-96388	LIMS-96388	LIMS-96356, LIMS-96679, LIMS-	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96359, LIMS-96668	LIMS-96388	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96356	LIMS-96356
METALS - (SPLP)															
splp - beryllium (mg/l)															
Beryllium	~	~	0.04	<0.0010	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - cd low (mg/l leachate)															
Cadmium	~	~	0.05	NT	NT	NT	<0.03	<0.02	<0.03	NT	NT	<0.03	<0.03	NT	NT
splp - chromium (mg/l leachate)															
Chromium	~	~	0.50	NT	NT	NT	NT	NT	NT	<0.03	NT	NT	NT	NT	NT
splp - copper (mg/l leachate)															
Copper	~	~	13.00	0.03	NT	NT	1.95	NT	NT	NT	NT	NT	NT	NT	NT
splp - lead icp (mg/l leachate)															
Lead	~	~	0.15	0.03	NT	NT	0.15	0.02	0.01	<0.01	NT	0.02	0.03	NT	NT
splp - nickel (mg/l leachate)															
Nickel	~	~	1.00	<0.03	NT	NT	0.15	0.04	<0.03	NT	NT	<0.03	<0.03	NT	NT
splp - sb furn (mg/l)															
Antimony	~	~	0.06	0.0418	NT	NT	0.0109	0.0089	0.0079	0.0064	NT	0.0070	0.0091	NT	NT
splp - silver (mg/l leachate)															
Silver	~	~	0.36	NT	NT	NT	<0.03	NT	NT	NT	NT	NT	NT	NT	NT
splp - tl furn (mg/l)															
Thallium	~	~	0.05	NT	NT	NT	<0.0005	<0.0005	<0.0005	<0.0005	NT	<0.0005	<0.0005	NT	NT
splp - vanadium (mg/l leachate)															
Vanadium	~	~	0.50	NT	NT	NT	<0.03	<0.02	<0.03	<0.03	NT	<0.03	<0.03	NT	NT
splp barium icp (mg/l leachate)															
Barium	~	~	10.00	NT	NT	NT	1.37	NT	NT	NT	NT	1.17	NT	NT	NT
splp mercury (mg/l leachate)															
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - MASS															
pah - sludge (mg/kg dry wt)															
Acenaphthene	2,500	1,000	84	<0.19	<0.19	<0.91	1.80	<0.22	<0.20	<0.20	<0.19	<0.20	<0.19	<0.21 UJ	<0.21 UJ
Acenaphthylene	2,500	1,000	84	<0.19	<0.19	<0.91	<0.97	<0.22	<0.20	<0.20	<0.19	<0.20	0.38	<0.21 UJ	<0.21 UJ
Anthracene	2,500	1,000	400	<0.19	<0.19	<0.91	3.83	<0.22	0.27	<0.20	<0.19	<0.20	3.73	<0.21 UJ	0.73 J
Benzo(a)anthracene	7.80	1.00	1	<0.19	0.71	0.92 J	8.47	<0.22	0.78	<0.20	<0.19	<0.20	4.14	<0.21 UJ	1.87 J
Benzo(a)pyrene	1.00	1.00	1	<0.19	0.76	<0.91	7.42	<0.22	0.59	<0.20	<0.19	<0.20	3.75	<0.21 UJ	0.76 J
Benzo(b)fluoranthene	7.80	1.00	1	<0.19	1.05	1.3 J	9.96	<0.22	0.71	<0.20	<0.19	<0.20	4.39	<0.21 UJ	0.93 J
Benzo(g,h,i)perylene	2,500	1,000	42	<0.19	0.44	<0.91	4.48	<0.22	0.27	<0.20	<0.19	<0.20	1.71	<0.21 UJ	0.30 J
Benzo(k)fluoranthene	78.0	8.40	1	<0.19	0.38	<0.91	3.45	<0.22	0.32	<0.20	<0.19	<0.20	1.59	<0.21 UJ	0.37 J
Chrysene	780	84.0	1	<0.19	0.78	0.98	8.23	<0.22	0.71	<0.20	<0.19	<0.20	3.75	<0.21 UJ	0.93 J
Dibenz(a,h)anthracene	1.00	1.00	1	<0.19	<0.19	<0.91	1.18	<0.22	<0.20	<0.20	<0.19	<0.20	0.58	<0.21 UJ	<0.21 UJ
Fluoranthene	2,500	1,000	56	0.21	1.21	1.65 J	21.9	<0.22	1.44	<0.20	<0.19	<0.20	7.92	<0.21 UJ	2.09 J
Fluorene	2,500	1,000	56	<0.19	<0.19	<0.91	1.22	<0.22	<0.20	<0.20	<0.19	<0.20	0.86	<0.21 UJ	0.27 J
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	<0.19	0.49	<0.91	4.99	<0.22	0.31	<0.20	<0.19	<0.20	2.04	<0.21 UJ	0.36 J
2-Methylnaphthalene	2,500	474	9.8	<0.19	<0.19	<0.91	<0.97	<0.22	<0.20	<0.20	<0.19	<0.20	<0.19	<0.21 UJ	<0.21 UJ
Naphthalene	2,500	1,000	56	<0.19	<0.19	<0.91	<0.97	<0.22	<0.20	<0.20	<0.19	<0.20	<0.19	<0.21 UJ	<0.21 UJ
Phenanthrene	2,500	1,000	40	<0.19	0.70	1.15	19.7	<0.22	0.87	<0.20	<0.19	<0.20	6.45	<0.21 UJ	2.04 J
Pyrene	2,500	1,000	40	<0.19	1.19	1.69 J	16.4	<0.22	1.19	<0.20	<0.19	<0.20	6.88	<0.21 UJ	1.82 J
PAHs - (self-implementing)															
splp - pah (ug/l)			GWPC X 10												
Acenaphthene	~	~	4200	NT	NT	NT	0.32	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	~	~	4200	NT	NT	NT	<0.30	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	~	~	20000	NT	NT	NT	0.20	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	NT	NT	NT	<0.050	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	NT	NT	NT	<0.100	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	NT	NT	NT	<0.050	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	NT	NT	NT	<0.500	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	NT	NT	NT	<0.200	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	~	~	48	NT	NT	NT	0.23	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	NT	NT	NT	<0.500	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	~	~	2800	NT	NT	NT	<0.50	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	~	~	2800	NT	NT	NT	<1.00	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	NT	NT	NT	<0.500	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	~	~	49	NT	NT	NT	<1.00	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	<1.00	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	~	~	2000	NT	NT	NT	0.16	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	~	~	2000	NT	NT	NT	<1.00	NT	NT	NT	NT	NT	NT	NT	NT
Method 600/R-93/116															
Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cyanide-tot sldg (mg/kg dry wt)															
Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)															
Extractable TPH (ETPH)	2,500	500	2500	360	110	140	160	20	43	<12	41	22	890	33	<13
solids (percent) (%)															
Solids, total	~	~	~	90.4	91.3	91.8	86.7	78.7	85.7	83.8	88.2	85.4	92.5	82.6	80.0

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC-17 AOC-17-SS1	AOC-17 AOC-17-SS2	AOC-17 AOC-17-SB1 5-7	AOC-17 AOC-17-SB1 12-14	AOC-17 AOC-17-SB2 2-4	AOC-17 AOC-17-SB2 14-16	AOC-17 AOC-17-SB2 18-20	AOC-19 AOC-19-SB02 2-4	AOC-19 AOC-19-SB2 7-9	AOC-19 AOC-19-SB3 2-4	AOC-19 AOC-19-SB3-8-10	AOC-19 AOC-19-MW1 2-4	AOC-19 AOC19-MW-1 5-7	
Sampling Date				3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/30/06	3/31/06	3/29/06	3/31/06	3/29/06	3/30/06	
Sample Depth (feet)				0-0.5	0-0.5	5-7	12-14	2-4	14-16	18-20	2-4	7-9	2-4	8-10	2-4	5-7	
Laboratory Report Number				LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96360	LIMS-96360	LIMS-96357, LIMS-96668	LIMS-96388, LIMS-96737	LIMS-96358, LIMS-96679, LIMS-	LIMS-96388	LIMS-96358	LIMS-96392, LIMS-96737	
VOCs - MASS																	
8260 dry weight (mg/kg dry wt)																	
Acrylonitrile	11	1.1	0.10	<0.022*	<0.023*	<0.018*	<0.024*	<0.017*	<3.1*	<3.0*	<0.017*	<0.015*	<0.021*	<0.019*	NT	<0.020*	
tert-Amylmethyl Ether	~	~	~	<0.002	<0.002	<0.001	<0.002	<0.001	<0.16	<0.15	<0.001	<0.001	<0.002	<0.001	NT	<0.001	
Benzene	200	21	0.20	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31*	<0.30*	<0.002	<0.002	0.004	<0.002	NT	<0.002	
Bromodichloromethane	92	9.9	0.11	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31*	<0.30*	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Bromomethane	1,000	95	2.0	<0.011	<0.012	<0.009	<0.012	<0.009	<1.6	<1.5	<0.009	<0.008	<0.011	<0.010	NT	<0.010	
n-Butylbenzene	1,000	500	14	<0.003	<0.003	<0.002	<0.003	<0.002	0.95	0.57	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
sec-Butylbenzene	1,000	500	14	<0.003	<0.003	<0.002	<0.003	<0.002	0.76	0.48	<0.002	0.002	<0.003	<0.002	NT	<0.002	
tert-Butylbenzene	1,000	500	14	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Carbon Tetrachloride	44	4.7	1.0	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Chlorodibromomethane	68	7.3	0.10	<0.002	<0.002	<0.001	<0.002	<0.001	<0.16*	<0.15*	<0.001	<0.001	<0.002	<0.001	NT	<0.001	
Chloroform	940	100	1.2	<0.005	<0.005	<0.004	<0.005	<0.004	<0.61	<0.59	<0.003	<0.003	<0.005	<0.004	NT	<0.004	
Chloromethane	440	47	0.54	<0.011	<0.012	<0.009	<0.012	<0.009	<1.6*	<1.5*	<0.009	<0.008	<0.011	<0.010	NT	<0.010	
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,2-Dibromoethane	0.067	0.007	~	<0.002	<0.002	<0.001	<0.002	<0.001	<0.16*	<0.15*	<0.001	<0.001	<0.002	<0.001	NT	<0.001	
cis-1,2-Dichloroethylene	1,000	500	14	<0.003	<0.003	<0.002	0.005	0.002	2.5	6.1	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,2-Dichloropropane	84	9.0	1.0	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31*	<0.30*	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,3-Dichloropropane	~	~	0.1	<0.002	<0.002	<0.001	<0.002	<0.001	<0.16	<0.15	<0.001	<0.001	<0.002	<0.001	NT	<0.001	
Ethyl Benzene	1,000	500	10	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Isopropylbenzene	1,000	500	130	<0.003	<0.003	<0.002	<0.003	<0.002	0.63	0.52	<0.002	0.002	<0.003	<0.002	NT	<0.002	
p-Isopropyltoluene	1,000	500	14	<0.003	<0.003	<0.002	<0.003	<0.002	0.59	0.31	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Methylene Chloride	760	82	1.0	<0.022	<0.023	0.039	<0.024	<0.017	<3.1*	<3.0*	<0.017	<0.015	<0.021	<0.019	NT	0.040	
Naphthalene	2,500	1,000	56	<0.011	<0.012	<0.009	<0.012	<0.009	<1.6	<1.5	<0.009	<0.008	<0.011	<0.010	NT	<0.010	UJ
n-Propylbenzene	1,000	500	14	<0.003	<0.003	<0.002	<0.003	<0.002	0.92	0.79	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31*	<0.30*	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.002	<0.002	<0.001	<0.002	<0.001	<0.16*	<0.15*	<0.001	<0.001	<0.002	<0.001	NT	<0.001	
Tetrachloroethylene	110	12	1.0	0.007	<0.003	<0.002	<0.003	0.008	59	52	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Toluene	1,000	500	67	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Trichloroethylene	520	56	1.0	0.008	0.003	0.025	0.004	0.022	6.8	12	<0.002	<0.002	0.008	<0.002	NT	0.005	
1,2,4-Trimethylbenzene	1,000	500	70	<0.003	<0.003	<0.002	<0.003	<0.002	1.1	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
1,3,5-Trimethylbenzene	1,000	500	70	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
Vinyl Chloride	3.0	0.32	0.40	<0.011	<0.012	<0.009	<0.012	<0.009	<1.6*	<1.5*	<0.009	<0.008	<0.011	<0.010	NT	<0.010	
m + p Xylene	1,000	500	20	<0.005	<0.005	<0.004	<0.005	<0.004	<0.61	<0.59	<0.003	<0.003	<0.005	<0.004	NT	<0.004	
o-Xylene	1,000	500	20	<0.003	<0.003	<0.002	<0.003	<0.002	<0.31	<0.30	<0.002	<0.002	<0.003	<0.002	NT	<0.002	
VOCs - (self-implementing)																	
splp 8260 (ug/l)			**GWPC X 10**														
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Methylene Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Tetrachloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Trichloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	
METALS - TOTAL (mg/kg)			**PMC X 20 (screening)**														
ag (mg/kg)dw icp (mg/kg dry wt)																	
Silver	10,000	340	7.20	14.0	<0.58	<0.56	NT	0.80	NT	NT	**46.1**	1.38	19.7	<0.57	**109**	5.20	
as (mg/kg)dw icp (mg/kg dry wt)																	
Arsenic	10.0	10.0	10.00	8.84	19.3	<5.51	NT	<5.50	NT	NT	<5.95	<5.66	7.10	<5.68	6.04	<5.82	
ba (mg/kg)dw icp (mg/kg dry wt)																	
Barium	140,000	4,700	200.00	113	172	40.8	NT	65.0	NT	NT	168	64.7	148	97.1	196	98.9	
be (mg/kg)dw icp (mg/kg dry wt)																	
Beryllium	2.00	2.00	0.80	0.61	0.60	0.72	NT	0.62	NT	NT	0.68	0.52	0.52	0.53	0.45	0.51	
cd (mg/kg)dw icp (mg/kg dry wt)																	
Cadmium	1,000	34.0	1.00	0.71	1.15	<0.56	NT	<0.55	NT	NT	<0.60	<0.57	<0.61	<0.57	<0.60	0.60	
cr (mg/kg)dw icp (mg/kg dry wt)																	
Chromium	~	~	10.00	**18.0**	**38.4**	**14.8**	NT	**15.0**	NT	NT	**20.3**	**10.4**	**17.9**	**13.6**	**33.3**	**14.8**	
cu (mg/kg)dw icp (mg/kg dry wt)																	
Copper	76,000	2,500	260.00	**593**	**721**	25.2	NT	71.3	NT	NT	**614**	91.0	3,710	110	2,580	187	
hg (mg/kg) dw (mg/kg dry wt)																	
Mercury	610	20.0	0.40	0.238	0.518	<0.006	NT	0.047	NT	NT	**0.557**	0.031	0.092	0.011	0.244	0.239	
ni (mg/kg)dw icp (mg/kg dry wt)																	
Nickel	7,500	1,400	20.00	**117**	**136**	15.1	NT	17.8	NT	NT	**110**	**197**	**762**	**67.4**	**501**	**125**	
pb (mg/kg)dw icp (mg/kg dry wt)																	
Lead	1,000	400	3.00	**179**	**154**	**7.40**	NT	**31.8**	NT	NT	**797**	**15.3**	**209**	**3.77**	**234**	**51.8**	
sb (mg/kg)dw icp (mg/kg dry wt)																	
Antimony	8,200	27.0	1.20	**6.21**	**8.96**	<4.41*	NT	**4.67**	NT	NT	**8.31**	<4.53*	<4.83*	<4.55*	<4.73*	<4.66*	
v (mg/kg)dw icp (mg/kg dry wt)																	
Vanadium	14,000	470	10.00	**43.2**	**817**	**40.2**	NT	**41.8**	NT	NT	**40.2**	**35.0**	**33.6**	**40.7**	**29.5**	**39.1**	
zn (mg/kg)dw icp (mg/kg dry wt)																	
Zinc	610,000	20,000	1000.00	331	415	136	NT	64.9	NT	NT	279	247	800	103	778	231	

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC I/C DEC	RSR DEC R DEC	GB PMC	AOC-17 AOC-17-SS1	AOC-17 AOC-17-SS2	AOC-17 AOC-17-SB1 5-7	AOC-17 AOC-17-SB1 12-14	AOC-17 AOC-17-SB2 2-4	AOC-17 AOC-17-SB2 14-16	AOC-17 AOC-17-SB2 18-20	AOC-19 AOC-19-SB02 2-4	AOC-19 AOC-19-SB2 7-9	AOC-19 AOC-19-SB3 2-4	AOC-19 AOC-19-SB3-8-10	AOC-19 AOC-19-MW1 2-4	AOC-19 AOC19-MW-1 5-7
Sampling Date				3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/29/06	3/30/06	3/31/06	3/29/06	3/31/06	3/29/06	3/30/06
Sample Depth (feet)				0-0.5	0-0.5	5-7	12-14	2-4	14-16	18-20	2-4	7-9	2-4	8-10	2-4	5-7
Laboratory Report Number				LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96360	LIMS-96360	LIMS-96357, LIMS-96668	LIMS-96388, LIMS-96737	LIMS-96358, LIMS-96679, LIMS-	LIMS-96388	LIMS-96358	LIMS-96392, LIMS-96737
METALS - (SPLP)																
splp - beryllium (mg/l) Beryllium	~	~	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - cd low (mg/l leachate) Cadmium	~	~	0.05	NT	<0.003	NT	NT	NT	NT	NT	NT	NT	<0.03	NT	NT	NT
splp - chromium (mg/l leachate) Chromium	~	~	0.50	NT	<0.03	NT	NT	<0.03	NT	NT	<0.03	<0.03	NT	NT	NT	<0.03
splp - copper (mg/l leachate) Copper	~	~	13.00	NT	0.13	NT	NT	NT	NT	NT	1.01	NT	4.31	NT	NT	NT
splp - lead icp (mg/l leachate) Lead	~	~	0.15	NT	0.16	NT	NT	0.01	NT	NT	3.06	<0.01	0.07	NT	NT	0.02
splp - nickel (mg/l leachate) Nickel	~	~	1.00	NT	<0.03	NT	NT	NT	NT	NT	0.05	0.11	0.31	NT	NT	<0.03
splp - sb furn (mg/l) Antimony	~	~	0.06	NT	0.0920	NT	NT	0.0043	NT	NT	0.0520	0.0060	0.0098	NT	NT	NT
splp - silver (mg/l leachate) Silver	~	~	0.36	NT	NT	NT	NT	NT	NT	NT	<0.03	NT	<0.03	NT	NT	NT
splp - tl furn (mg/l) Thallium	~	~	0.05	NT	<0.0005	NT	NT	<0.0005	NT	NT	<0.0005	<0.0005	<0.0005	NT	NT	NT
splp - vanadium (mg/l leachate) Vanadium	~	~	0.50	NT	0.03	NT	NT	<0.03	NT	NT	<0.03	<0.03	<0.03	NT	NT	NT
splp barium icp (mg/l leachate) Barium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp mercury (mg/l leachate) Mercury	~	~	0.02	NT	<0.00004	NT	NT	NT	NT	NT	0.00004	NT	NT	NT	NT	NT
PAHs - MASS																
pah - sludge (mg/kg dry wt)																
Acenaphthene	2,500	1,000	84	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	0.22	<0.19	<0.20	<0.19
Acenaphthylene	2,500	1,000	84	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	<0.21	<0.19	<0.20	<0.19
Anthracene	2,500	1,000	400	NT	NT	NT	NT	NT	NT	NT	0.31	<0.95	0.45	<0.19	0.27	<0.19
Benzo(a)anthracene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	0.87	<0.95	1.04	<0.19	0.97	<0.19
Benzo(a)pyrene	1.00	1.00	1	NT	NT	NT	NT	NT	NT	NT	0.70	<0.95	1.00	<0.19	0.92	<0.19
Benzo(b)fluoranthene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	0.93	<0.95	2.22	<0.19	1.24	<0.19
Benzo(g,h,i)perylene	2,500	1,000	42	NT	NT	NT	NT	NT	NT	NT	0.31	<0.95	0.62	<0.19	0.56	<0.19
Benzo(k)fluoranthene	78.0	8.40	1	NT	NT	NT	NT	NT	NT	NT	0.33	<0.95	0.46	<0.19	0.43	<0.19
Chrysene	780	84.0	1	NT	NT	NT	NT	NT	NT	NT	0.88	<0.95	1.06	<0.19	0.99	<0.19
Dibenz(a,h)anthracene	1.00	1.00	1	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	<0.21	<0.19	<0.20	<0.19
Fluoranthene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	1.43	<0.95	2.38	<0.19	1.73	<0.19
Fluorene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	<0.21	<0.19	<0.20	<0.19
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	NT	NT	NT	NT	NT	NT	NT	0.36	<0.95	0.62	<0.19	0.63	<0.19
2-Methylnaphthalene	2,500	474	9.8	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	<0.21	<0.19	<0.20	<0.19
Naphthalene	2,500	1,000	56	NT	NT	NT	NT	NT	NT	NT	<0.20	<0.95	<0.21	<0.19	<0.20	<0.19
Phenanthrene	2,500	1,000	40	NT	NT	NT	NT	NT	NT	NT	1.19	<0.95	2.33	<0.19	1.21	<0.19
Pyrene	2,500	1,000	40	NT	NT	NT	NT	NT	NT	NT	1.54	<0.95	2.44	<0.19	1.73	<0.19
PAHs - (self-implementing)																
splp - pah (ug/l)			GWPC X 10													
Acenaphthene	~	~	4200	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.30	NT	NT	NT
Acenaphthylene	~	~	4200	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.30	NT	NT	NT
Anthracene	~	~	20000	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.20	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.050	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.100	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.050	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.500	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.200	NT	NT	NT
Chrysene	~	~	48	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.20	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.500	NT	NT	NT
Fluoranthene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.50	NT	NT	NT
Fluorene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	<1.00	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.500	NT	NT	NT
2-Methylnaphthalene	~	~	49	NT	NT	NT	NT	NT	NT	NT	NT	NT	<1.00	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	<1.00	NT	NT	NT
Phenanthrene	~	~	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.10	NT	NT	NT
Pyrene	~	~	2000	NT	NT	NT	NT	NT	NT	NT	NT	NT	<1.00	NT	NT	NT
Method 600/R-93/116 Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cyanide-tot sldg (mg/kg dry wt) Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight) Extractable TPH (ETPH)	2,500	500	2500	NT	NT	NT	NT	NT	NT	NT	190	4,800	160	17	200	<12
solids (percent) (%) Solids, total	~	~	~	88.2	87.4	90.8	77.8	91.0	NT	NT	84.2	88.4	82.9	88.1	84.7	85.9

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-24			AOC-30				AOC-SAC		AOC-SAE		AOC-SAH	
	I/C DEC	R DEC	GB PMC	AOC-24-SS1	AOC-24-MW1 2-4	AOC-24-MW1 4-6	AOC-30-SS1 MS/MSD	AOC-30-SS1DUP	AOC-30-MW1 2-4	AOC-30-MW1 5-7	AOC-SAC-SS1	AOC-SAC-SB1 2-4	AOC-SAE-SB1 0-2	AOC-SAE-SB1 2-4	SAH-SB1 0-2	AOC-SA-H-SB01 2-4
Sampling Date				3/29/06	3/29/06	3/29/06	3/30/06	3/30/06	3/30/06	3/30/06	3/29/06	3/29/06	3/29/06	3/29/06	3/31/06	3/30/06
Sample Depth (feet)				0-0.5	2-4	4-6	0-0.5	0-0.5	2-4	5-7	0-0.5	2-4	0-2	2-4	0-2	2-4
Laboratory Report Number				LIMS-96359, LIMS-96661	LIMS-96359, LIMS-96661	LIMS-96358	LIMS-96356	LIMS-96356	LIMS-96356	LIMS-96356	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96388	LIMS-96357, LIMS-96668
VOCs - MASS																
8260 dry weight (mg/kg dry wt)																
Acrylonitrile	11	1.1	0.10	<0.021*	<0.022*	NT	<0.017*	<0.025*	<0.023*	<0.020*	NT	NT	NT	NT	<0.020*	<0.013*
tert-Amylmethyl Ether	~	~	~	<0.002	<0.002	NT	<0.001	<0.002	<0.002	<0.001	NT	NT	NT	NT	<0.001	<0.001
Benzene	200	21	0.20	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Bromodichloromethane	92	9.9	0.11	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Bromomethane	1,000	95	2.0	<0.011	<0.011	NT	<0.009	<0.013	<0.012	<0.010	NT	NT	NT	NT	<0.010	<0.007
n-Butylbenzene	1,000	500	14	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
sec-Butylbenzene	1,000	500	14	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
tert-Butylbenzene	1,000	500	14	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Carbon Tetrachloride	44	4.7	1.0	<0.003	0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Chlorodibromomethane	68	7.3	0.10	<0.002	<0.002	NT	<0.001	<0.002	<0.002	<0.001	NT	NT	NT	NT	<0.001	<0.001
Chloroform	940	100	1.2	<0.005	0.007	NT	<0.004	<0.005	<0.005	<0.004	NT	NT	NT	NT	<0.004	<0.003
Chloromethane	440	47	0.54	<0.011	<0.011	NT	<0.009	<0.013	<0.012	<0.010	NT	NT	NT	NT	<0.010	<0.007
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,2-Dibromoethane	0.067	0.007	~	<0.002	<0.002	NT	<0.001	<0.002	<0.002	<0.001	NT	NT	NT	NT	<0.001	<0.001
cis-1,2-Dichloroethylene	1,000	500	14	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,2-Dichloropropane	84	9.0	1.0	<0.003	0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,3-Dichloropropane	~	~	0.1	<0.002	<0.002	NT	<0.001	<0.002	<0.002	<0.001	NT	NT	NT	NT	<0.001	<0.001
Ethyl Benzene	1,000	500	10	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Isopropylbenzene	1,000	500	130	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
p-Isopropyltoluene	1,000	500	14	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Methylene Chloride	760	82	1.0	<0.021	<0.022	NT	<0.017 UJ	<0.025	<0.023	<0.020 UJ	NT	NT	NT	NT	<0.020	<0.013
Naphthalene	2,500	1,000	56	<0.011	<0.011	NT	<0.009 UJ	<0.013	<0.012	<0.010	NT	NT	NT	NT	<0.010	<0.007
n-Propylbenzene	1,000	500	14	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.002	<0.002	NT	<0.001	<0.002	<0.002	<0.001	NT	NT	NT	NT	<0.001	<0.001
Tetrachloroethylene	110	12	1.0	0.007	0.021	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Toluene	1,000	500	67	<0.003	<0.003	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Trichloroethylene	520	56	1.0	0.063	27	NT	<0.002	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,2,4-Trimethylbenzene	1,000	500	70	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
1,3,5-Trimethylbenzene	1,000	500	70	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
Vinyl Chloride	3.0	0.32	0.40	<0.011	<0.011	NT	<0.009	<0.013	<0.012	<0.010	NT	NT	NT	NT	<0.010	<0.007
m + p Xylene	1,000	500	20	<0.005	<0.005	NT	<0.004 UJ	<0.005	<0.005	<0.004	NT	NT	NT	NT	<0.004	<0.003
o-Xylene	1,000	500	20	<0.003	<0.003	NT	<0.002 UJ	<0.003	<0.003	<0.002	NT	NT	NT	NT	<0.002	<0.002
VOCs - (self-implementing)																
splp 8260 (ug/l)			**GWPC X 10**													
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Methylene Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Tetrachloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Trichloroethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
METALS - TOTAL (mg/kg)			**PMC X 20 (screening)**													
ag (mg/kg)dw icp (mg/kg dry wt)																
Silver	10,000	340	7.20	NT	NT	NT	NT	NT	NT	NT	**22.9**	3.41	**20.3**	5.18	<0.54	<0.55
as (mg/kg)dw icp (mg/kg dry wt)																
Arsenic	10.0	10.0	10.00	NT	NT	NT	NT	NT	NT	NT	8.39	6.93	<5.56	<6.47	<5.36	<5.41
ba (mg/kg)dw icp (mg/kg dry wt)																
Barium	140,000	4,700	200.00	NT	NT	NT	NT	NT	NT	NT	114	138	70.1	183	33.0	37.1
be (mg/kg)dw icp (mg/kg dry wt)																
Beryllium	2.00	2.00	0.80	NT	NT	NT	NT	NT	NT	NT	0.68	0.72	0.48	**0.83**	0.29	<0.28
cd (mg/kg)dw icp (mg/kg dry wt)																
Cadmium	1,000	34.0	1.00	NT	NT	NT	NT	NT	NT	NT	<0.60	<0.60	**1.44**	<0.65	<0.54	<0.55
cr (mg/kg)dw icp (mg/kg dry wt)																
Chromium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	**23.2**	**58.1**	**91.6**	**31.1**	7.80	7.64
cu (mg/kg)dw icp (mg/kg dry wt)																
Copper	76,000	2,500	260.00	NT	NT	NT	NT	NT	NT	NT	**600**	205	**752**	238	9.35	11.0
hg (mg/kg) dw (mg/kg dry wt)																
Mercury	610	20.0	0.40	NT	NT	NT	NT	NT	NT	NT	0.156	0.303	**0.797**	0.223	0.008	<0.008
ni (mg/kg)dw icp (mg/kg dry wt)																
Nickel	7,500	1,400	20.00	NT	NT	NT	NT	NT	NT	NT	**353**	**35.8**	**29.2**	**21.1**	7.43	8.00
pb (mg/kg)dw icp (mg/kg dry wt)																
Lead	1,000	400	3.00	NT	NT	NT	NT	NT	NT	NT	**336**	**144**	**352**	**53.0**	**3.67**	**6.04**
sb (mg/kg)dw icp (mg/kg dry wt)																
Antimony	8,200	27.0	1.20	NT	NT	NT	NT	NT	NT	NT	**41.6**	**6.18**	**7.36**	<5.17*	<4.29*	<4.33*
v (mg/kg)dw icp (mg/kg dry wt)																
Vanadium	14,000	470	10.00	NT	NT	NT	NT	NT	NT	NT	**52.1**	**53.1**	**56.9**	**59.7**	**15.0**	**15.4**
zn (mg/kg)dw icp (mg/kg dry wt)																
Zinc	610,000	20,000	1000.00	NT	NT	NT	NT	NT	NT	NT	573	102	338	143	18.6	20.5

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-24			AOC-30				AOC-SAC		AOC-SAE		AOC-SAH	
	I/C DEC	R DEC	GB PMC	AOC-24-SS1	AOC-24-MW1 2-4	AOC-24-MW1 4-6	AOC-30-SS1 MS/MSD	AOC-30-SS1DUP	AOC-30-MW1 2-4	AOC-30-MW1 5-7	AOC-SAC-SS1	AOC-SAC-SB1 2-4	AOC-SAE-SB1 0-2	AOC-SAE-SB1 2-4	SAH-SB1 0-2	AOC-SA-H-SB01 2-4
Sampling Date				3/29/06	3/29/06	3/29/06	3/30/06	3/30/06	3/30/06	3/30/06	3/29/06	3/29/06	3/29/06	3/29/06	3/31/06	3/30/06
Sample Depth (feet)				0-0.5	2-4	4-6	0-0.5	0-0.5	2-4	5-7	0-0.5	2-4	0-2	2-4	0-2	2-4
Laboratory Report Number				LIMS-96359, LIMS-96661	LIMS-96359, LIMS-96661	LIMS-96358	LIMS-96356	LIMS-96356	LIMS-96356	LIMS-96356	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96359, LIMS-96668	LIMS-96359	LIMS-96388	LIMS-96357, LIMS-96668
METALS - (SPLP)																
splp - beryllium (mg/l)																
Beryllium	~	~	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.0010	NT	NT	NT
splp - cd low (mg/l leachate)																
Cadmium	~	~	0.05	NT	NT	NT	NT	NT	NT	NT	NT	NT	<0.003	NT	NT	NT
splp - chromium (mg/l leachate)																
Chromium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	<0.03	NT	<0.03	NT	NT	NT
splp - copper (mg/l leachate)																
Copper	~	~	13.00	NT	NT	NT	NT	NT	NT	NT	2.37	NT	0.60	NT	NT	NT
splp - lead icp (mg/l leachate)																
Lead	~	~	0.15	NT	NT	NT	NT	NT	NT	NT	**5.53****	NT	0.10	NT	NT	<0.01
splp - nickel (mg/l leachate)																
Nickel	~	~	1.00	NT	NT	NT	NT	NT	NT	NT	0.14	NT	<0.03	NT	NT	NT
splp - sb furn (mg/l)																
Antimony	~	~	0.06	NT	NT	NT	NT	NT	NT	NT	**0.0997**	NT	0.0098	NT	NT	0.0089
splp - silver (mg/l leachate)																
Silver	~	~	0.36	NT	NT	NT	NT	NT	NT	NT	<0.03	NT	<0.03	NT	NT	NT
splp - tl furn (mg/l)																
Thallium	~	~	0.05	NT	NT	NT	NT	NT	NT	NT	<0.0005	NT	<0.0005	NT	NT	<0.0005
splp - vanadium (mg/l leachate)																
Vanadium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	<0.03	NT	<0.03	NT	NT	<0.03
splp barium icp (mg/l leachate)																
Barium	~	~	10.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp mercury (mg/l leachate)																
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	0.00012	NT	NT	NT
PAHs - MASS																
pah - sludge (mg/kg dry wt)																
Acenaphthene	2,500	1,000	84	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Acenaphthylene	2,500	1,000	84	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Anthracene	2,500	1,000	400	<1.82	1.28	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Benzo(a)anthracene	7.80	1.00	1	**2.27**	**2.19**	<0.30	NT	NT	NT	NT	<0.20	0.28	NT	NT	NT	NT
Benzo(a)pyrene	1.00	1.00	1	**1.99**	**1.98**	<0.30	NT	NT	NT	NT	<0.20	0.22	NT	NT	NT	NT
Benzo(b)fluoranthene	7.80	1.00	1	**2.43**	**2.7**	<0.30	NT	NT	NT	NT	<0.20	0.32	NT	NT	NT	NT
Benzo(g,h,i)perylene	2,500	1,000	42	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Benzo(k)fluoranthene	78.0	8.40	1	<1.82*	**1.08**	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Chrysene	780	84.0	1	**2.44**	**2.23**	<0.30	NT	NT	NT	NT	<0.20	0.26	NT	NT	NT	NT
Dibenz(a,h)anthracene	1.00	1.00	1	<1.82*	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Fluoranthene	2,500	1,000	56	4.93	5.02	<0.30	NT	NT	NT	NT	<0.20	0.37	NT	NT	NT	NT
Fluorene	2,500	1,000	56	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	<1.82*	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
2-Methylnaphthalene	2,500	474	9.8	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Naphthalene	2,500	1,000	56	<1.82	<0.94	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Phenanthrene	2,500	1,000	40	5.29	5.26	<0.30	NT	NT	NT	NT	<0.20	<0.20	NT	NT	NT	NT
Pyrene	2,500	1,000	40	4.99	4.69	<0.30	NT	NT	NT	NT	<0.20	0.38	NT	NT	NT	NT
PAHs - (self-implementing)																
splp - pah (ug/l)			**GWPC X 10**													
Acenaphthene	~	~	4200	<0.30	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	~	~	4200	<0.30	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	~	~	20000	<0.20	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	<0.050	<0.050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	<0.100	<0.100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	<0.050	<0.050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	<0.500	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	<0.200	<0.200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	~	~	48	<0.20	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	<0.500	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	~	~	2800	<0.50	<0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	~	~	2800	<1.00	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	<0.500	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	~	~	49	<1.00	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	<1.00	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	~	~	2000	<0.10	<0.10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	~	~	2000	<1.00	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Method 600/R-93/116																
Asbestos	~	~	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cyanide-tot sldg (mg/kg dry wt)																
Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)																
Extractable TPH (ETPH)	2,500	500	2500	400	180	91 J	120	210	100	<13	91	110	NT	NT	21	<11
solids (percent) (%)																
Solids, total	~	~	~	92.0	88.7	56.0	91.0	90.4	77.7	82.0 J	83.6	83.6	90.0	77.4	93.5	92.6

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-SAM			AOC-SAN		AOC-SAO		AOC-SAP		AOC-SAT			AOC-25	
	I/C DEC	R DEC	GB PMC	AOC-SA-M-SB1 0-2	AOC-SA-M SB1 2-4	AOC-SA-M-SB-02	AOC-SAN-SS1	AOCSAN-SS-2	AOC-SAO-SB1 0-2	AOC-SAO-SB1-2-4	AOC-SAP-SS1	AOC-SAP-SS2	AOC-SAT-SS1	AOC-SA-T-03	AOC-SA-T-04	MW-100 11.5 -13.5	MW-107 6-8
Sampling Date				3/29/06	3/29/06	5/10/06	3/31/06	3/31/06	3/30/06	3/30/06	3/29/06	3/29/06	3/31/06	3/30/06	3/30/06	11/23/06	11/23/06
Sample Depth (feet)				0-2	2-4	0-1	0-0.5	0-0.5	0-2	2-4	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	11.5 -13.5	6-8
Laboratory Report Number				LIMS-96358, LIMS-96679, LIMS-	LIMS-96358	LIMS-97315	LIMS-96388, LIMS-96737	LIMS-96392	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96360	LIMS-96360	LIMS-96388	LIMS-96357, LIMS-96668	LIMS-96357	LIMT- 01995	LIMT- 01995
VOCs - MASS																	
8260 dry weight (mg/kg dry wt)																	
Acrylonitrile	11	1.1	0.10	<0.019*	NT	<0.022*	NT	NT	<0.013*	<0.026*	NT	NT	NT	NT	NT	<0.021	<0.025
tert-Amylmethyl Ether	~	~	~	<0.001	NT	<0.002	NT	NT	<0.001	<0.002	NT	NT	NT	NT	NT	<0.001	<0.002
Benzene	200	21	0.20	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Bromodichloromethane	92	9.9	0.11	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Bromomethane	1,000	95	2.0	<0.010	NT	<0.011	NT	NT	<0.006	<0.013	NT	NT	NT	NT	NT	<0.011	<0.013
n-Butylbenzene	1,000	500	14	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
sec-Butylbenzene	1,000	500	14	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
tert-Butylbenzene	1,000	500	14	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Carbon Tetrachloride	44	4.7	1.0	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Chlorodibromomethane	68	7.3	0.10	<0.001	NT	<0.002	NT	NT	<0.001	<0.002	NT	NT	NT	NT	NT	<0.001	<0.002
Chloroform	940	100	1.2	<0.004	NT	<0.005	NT	NT	<0.003	<0.006	NT	NT	NT	NT	NT	<0.004	<0.005
Chloromethane	440	47	0.54	<0.010	NT	<0.011	NT	NT	<0.006	<0.013	NT	NT	NT	NT	NT	<0.011	<0.013
1,2-Dibromo-3-Chloropropane	4.1	0.44	~	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,2-Dibromoethane	0.067	0.007	~	<0.001	NT	<0.002	NT	NT	<0.001	<0.002	NT	NT	NT	NT	NT	<0.001	<0.002
cis-1,2-Dichloroethylene	1,000	500	14	0.006	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,2-Dichloropropane	84	9.0	1.0	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,3-Dichloropropane	~	~	0.1	<0.001	NT	<0.002	NT	NT	<0.001	<0.002	NT	NT	NT	NT	NT	<0.001	<0.002
Ethyl Benzene	1,000	500	10	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Isopropylbenzene	1,000	500	130	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
p-Isopropyltoluene	1,000	500	14	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Methylene Chloride	760	82	1.0	<0.019	NT	<0.022	NT	NT	<0.013 UJ	<0.026 UJ	NT	NT	NT	NT	NT	<0.021	<0.025
Naphthalene	2,500	1,000	56	<0.010	NT	<0.011	NT	NT	0.062	<0.013	NT	NT	NT	NT	NT	<0.004	<0.005
n-Propylbenzene	1,000	500	14	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,1,1,2-Tetrachloroethane	220	24	0.20	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,1,2,2-Tetrachloroethane	29	3.1	0.10	<0.001	NT	<0.002	NT	NT	<0.001	<0.002	NT	NT	NT	NT	NT	<0.001	<0.002
Tetrachloroethylene	110	12	1.0	0.021	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	0.008	<0.003
Toluene	1,000	500	67	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Trichloroethylene	520	56	1.0	0.034	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	0.007	<0.003
1,2,4-Trimethylbenzene	1,000	500	70	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
1,3,5-Trimethylbenzene	1,000	500	70	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
Vinyl Chloride	3.0	0.32	0.40	<0.010	NT	<0.011	NT	NT	<0.006	<0.013	NT	NT	NT	NT	NT	<0.011	<0.013
m + p Xylene	1,000	500	20	<0.004	NT	<0.005	NT	NT	<0.003	<0.006	NT	NT	NT	NT	NT	<0.004	<0.005
o-Xylene	1,000	500	20	<0.002	NT	<0.003	NT	NT	<0.001	<0.003	NT	NT	NT	NT	NT	<0.002	<0.003
VOCs - (self-implementing)																	
splp 8260 (ug/l)			**GWPC X 10**														
Acetone	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
n-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
tert-Butylbenzene	~	~	610	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Carbon Disulfide	~	~	7000	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
cis-1,2-Dichloroethylene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
p-Isopropyltoluene	~	~	700	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
[illegible]e Chloride	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
[illegible]ne	~	~	2800	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
[illegible]roethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
T[illegible]roethylene	~	~	50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,2,4-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
1,3,5-Trimethylbenzene	~	~	3500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Vinyl Chloride	~	~	20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
o-Xylene	~	~	5300	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
METALS - TOTAL (mg/kg)			**PMC X 20 (screening)**														
ag (mg/kg)dw icp (mg/kg dry wt)																	
Silver	10,000	340	7.20	4.94	<0.59	2.75	NT	NT	**17.8**	<0.68	NT	NT	NT	NT	NT	NT	NT
as (mg/kg)dw icp (mg/kg dry wt)																	
Arsenic	10.0	10.0	10.00	<5.67	<5.85	7.76	NT	NT	<5.66	<6.72	NT	NT	NT	NT	NT	NT	NT
ba (mg/kg)dw icp (mg/kg dry wt)																	
Barium	140,000	4,700	200.00	145	116	**304**	NT	NT	106	**263**	NT	NT	NT	NT	NT	NT	NT
be (mg/kg)dw icp (mg/kg dry wt)																	
Beryllium	2.00	2.00	0.80	0.50	**0.96**	0.48	NT	NT	0.69	0.76	NT	NT	NT	NT	NT	NT	NT
cd (mg/kg)dw icp (mg/kg dry wt)																	
Cadmium	1,000	34.0	1.00	<0.57	<0.59	0.78	NT	NT	0.68	<0.68	NT	NT	NT	NT	NT	NT	NT
cr (mg/kg)dw icp (mg/kg dry wt)																	
Chromium	~	~	10.00	**19.7**	**14.2**	**14.7**	NT	NT	**66.6**	**31.1**	NT	NT	NT	NT	NT	NT	NT
cu (mg/kg)dw icp (mg/kg dry wt)																	
Copper	76,000	2,500	260.00	**410**	37.9	194	NT	NT	**1,200**	33.1	NT	NT	NT	NT	NT	NT	NT
hg (mg/kg) dw (mg/kg dry wt)																	
Mercury	610	20.0	0.40	0.236	0.061	0.393	NT	NT	**0.406**	0.059	NT	NT	NT	NT	NT	NT	NT
ni (mg/kg)dw icp (mg/kg dry wt)																	
Nickel	7,500	1,400	20.00	**98.6**	16.1	**32.6**	NT	NT	**117**	**27.3**	NT	NT	NT	NT	NT	NT	NT
pb (mg/kg)dw icp (mg/kg dry wt)																	
Lead	1,000	400	3.00	**162**	**20.1**	**333**	**362** J	**3.09**	**241**	**38.1**	NT	NT	**344**	**406**	**131**	NT	NT
sb (mg/kg)dw icp (mg/kg dry wt)																	
Antimony	8,200	27.0	1.20	<4.54*	<4.68*	<3.13* UJ	NT	NT	**4.77**	<5.38*	NT	NT	NT	NT	NT	NT	NT
v (mg/kg)dw icp (mg/kg dry wt)																	
Vanadium	14,000	470	10.00	**41.4**	**38.0**	**39.2**	NT	NT	**53.4**	**62.5**	NT	NT	NT	NT	NT	NT	NT
zn (mg/kg)dw icp (mg/kg dry wt)																	
Zinc	610,000	20,000	1000.00	283	179	290	NT	NT	407	64.9	NT	NT	NT	NT	NT	NT	NT

Table 4
Analytical Summary - Soil Samples
International Silver Company, Factory H
Meriden, Connecticut
Metcalf Eddy, Inc.
March 2007

Parameter	RSR DEC			AOC-SAM			AOC-SAN		AOC-SAO		AOC-SAP		AOC-SAT			AOC-25	
	I/C DEC	R DEC	GB PMC	AOC-SA-M-SB1 0-2	AOC-SA-M SB1 2-4	AOC-SA-M-SB-02	AOC-SAN-SS1	AOCSAN-SS-2	AOC-SAO-SB1 0-2	AOC-SAO-SB1-2-4	AOC-SAP-SS1	AOC-SAP-SS2	AOC-SAT-SS1	AOC-SA-T-03	AOC-SA-T-04	MW-100 11.5 -13.5	MW-107 6-8
Sampling Date				3/29/06	3/29/06	5/10/06	3/31/06	3/31/06	3/30/06	3/30/06	3/29/06	3/29/06	3/31/06	3/30/06	3/30/06	11/23/06	11/23/06
Sample Depth (feet)				0-2	2-4	0-1	0-0.5	0-0.5	0-2	2-4	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	11.5 -13.5	6-8
Laboratory Report Number				LIMS-96358, LIMS-96679, LIMS-	LIMS-96358	LIMS-97315	LIMS-96388, LIMS-96737	LIMS-96392	LIMS-96356, LIMS-96679	LIMS-96356, LIMS-96679	LIMS-96360	LIMS-96360	LIMS-96388	LIMS-96357, LIMS-96668	LIMS-96357	LIMT- 01995	LIMT- 01995
METALS - (SPLP)																	
splp - beryllium (mg/l)																	
Beryllium	~	~	0.04	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - cd low (mg/l leachate)																	
Cadmium	~	~	0.05	<0.03	NT	NT	NT	NT	<0.02	<0.02	NT	NT	NT	NT	NT	NT	NT
splp - chromium (mg/l leachate)																	
Chromium	~	~	0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
splp - copper (mg/l leachate)																	
Copper	~	~	13.00	0.49	NT	NT	NT	NT	0.40	NT	NT	NT	NT	NT	NT	NT	NT
splp - lead icp (mg/l leachate)																	
Lead	~	~	0.15	0.05	NT	NT	0.02	NT	0.05	<0.01	NT	NT	NT	0.03	NT	NT	NT
splp - nickel (mg/l leachate)																	
Nickel	~	~	1.00	0.03	NT	NT	NT	NT	0.04	0.05	NT	NT	NT	NT	NT	NT	NT
splp - sb furn (mg/l)																	
Antimony	~	~	0.06	0.0071	NT	NT	NT	NT	0.0115	0.0057	NT	NT	NT	NT	NT	NT	NT
splp - silver (mg/l leachate)																	
Silver	~	~	0.36	NT	NT	NT	NT	NT	<0.02	NT	NT	NT	NT	NT	NT	NT	NT
splp - tl furn (mg/l)																	
Thallium	~	~	0.05	<0.0005	NT	NT	NT	NT	<0.0005	<0.0005	NT	NT	NT	NT	NT	NT	NT
splp - vanadium (mg/l leachate)																	
Vanadium	~	~	0.50	<0.03	NT	NT	NT	NT	<0.02	<0.02	NT	NT	NT	NT	NT	NT	NT
splp barium icp (mg/l leachate)																	
Barium	~	~	10.00	NT	NT	NT	NT	NT	NT	0.63	NT	NT	NT	NT	NT	NT	NT
splp mercury (mg/l leachate)																	
Mercury	~	~	0.02	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
PAHs - MASS																	
pah - sludge (mg/kg dry wt)																	
Acenaphthene	2,500	1,000	84	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	2,500	1,000	84	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	2,500	1,000	400	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	7.80	1.00	1	1.08	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	1.00	1.00	1	1.12	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	7.80	1.00	1	1.43	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	2,500	1,000	42	0.62	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	78.0	8.40	1	0.64	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	780	84.0	1	1.15	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	1.00	1.00	1	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	2,500	1,000	56	1.86	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	2,500	1,000	56	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	7.80	1.00	1	0.72	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	2,500	474	9.8	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	2,500	1,000	56	<0.38	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	2,500	1,000	40	1.02	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	2,500	1,000	40	1.90	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
(self-implementing)																	
pah (ug/l)			GWPC X 10														
Acenaphthene	~	~	4200	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Acenaphthylene	~	~	4200	<0.30	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Anthracene	~	~	20000	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)anthracene	~	~	0.6	<0.050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(a)pyrene	~	~	2.0	<0.100	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(b)fluoranthene	~	~	0.8	<0.050	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(g,h,i)perylene	~	~	2100	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Benzo(k)fluoranthene	~	~	5.0	<0.200	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Chrysene	~	~	48	<0.20	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Dibenz(a,h)anthracene	~	~	5.0	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluoranthene	~	~	2800	<0.50	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Fluorene	~	~	2800	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Indeno(1,2,3-cd)pyrene	~	~	5.0	<0.500	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
2-Methylnaphthalene	~	~	49	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Naphthalene	~	~	2800	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Phenanthrene	~	~	2000	<0.10	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Pyrene	~	~	2000	<1.00	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
Method 600/R-93/116																	
Asbestos	~	~	~	NT	NT	NT	ND	Chrysotile - trace Anosite - trace	NT	NT	ND	ND	ND	Chrysotile - trace	ND	NT	NT
cyanide-tot sldg (mg/kg dry wt)																	
Cyanide - None detected	41000	1400	~	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT	NT
etph dry weight (mg/kg dry weight)																	
Extractable TPH (ETPH)	2,500	500	2500	210	<12	NT	NT	NT	1,700	41	NT	NT	NT	NT	NT	NT	NT
solids (percent) (%)																	
Solids, total	~	~	~	88.3	85.6	NT	65.1	86.3	88.4	74.4	NT	NT	89.5	74.8	64.5	79.6	79.7

Table 5 - Summary of RSR Exceedances in Soil
International Sil· Company, Factory H
Meride onnecticut
Metcalf Eddy, Inc.
March 2007

AOC/Sample ID	Sample Depth	Criteria Exceeded and Parameter(s) in Exceedence		
		Parameter(s) Exceeding R DEC	Parameter(s) Exceeding I/C DEC	Parameter(s) Exceeding GB PMC
AOC-1-SB-01 4-6	4-6	**PAHs**	**PAHs**	None
AOC-1-SB-01 6-6	6	None	None	None
AOC-1-SB-02 2-4	2-4	**PAHs**	**PAHs**	None
AOC-1-SB-02 8-10	8-10	**ETPH**	**ETPH**	**ETPH (mass)**
AOC-1-SB-02 10-12	10-12	None	None	None
AOC-1-SB-03 0-2	0-2	**PAHs, ETPH**	**PAHs**	**Lead*, ETPH (mass)**
AOC-1-SB-03 10-12	10-12	None	None	None
AOC-2-SS-01	0-0.5	**PAHs, ETPH**	**PAHs**	**Lead***
AOC-2-SB-01 5.5-6	5.5-6	**PAHs**	**PAHs**	**PAHs (mass)**
AOC-2-SB01 6-8	6-8	**ETPH**	**ETPH**	**ETPH (mass)**
AOC-3-SB/MW-01 2-4	2-4	None	None	**Chromium*, Lead* Vanadium***
AOC-3-SB/MW-01 6-8	6-8	None	None	**Chromium*, Lead*, Vanadium***
(AOC-3) MW-N-Wall	11'	None	None	None
(AOC-3) MW-S-Wall	11'	None	None	None
(AOC-4) UST-W-WALL	4.5	None	None	None
(AOC-4) UST-E-WALL	4.5	None	None	None
(AOC-4) UST-S-WALL	4.5	None	None	None
(AOC-4) UST-N-WALL	4.5	None	None	None
(AOC-4) UST-BOTTOM	4.5	None	None	None
AOC-5-SS-01	0-0.5	**PAHs, ETPH**	**PAHs**	**PAHs (mass)**
AOC-5-SB-01 2-4	2-4	**PAHs**	**PAHs**	**PAHs (mass)**
AOC-5-SB-01 10-12	10-12	None	None	None
AOC-5-SB-02 2-4	2-4	**ETPH, PAHs**	**PAHs**	**Silver*, Copper*, Nickel*, Lead* Vanadium***
AOC-5-SB-02 9-11	9-11	**ETPH**	None	**Chromium*, Lead*, Vanadium***
AOC-5-RB1 2-4	2-4	None	None	None
AOC-5-RB2 2-4	2-4	None	None	None
(AOC-5) TP-S-1	No data	No data	No data	No data
(AOC-6) PX-GP-4	2-2.5	**Copper**	None	None
(AOC-6) PX-GP-4	2.5-4	None	None	None
(AOC-6) PX-GP-4	4-5.5	**ETPH, PAHs, Arsenic**	**Arsenic**	None

Table 5 - Summary of RSR Exceedances in Soil
International Sil· ·ompany, Factory H
Meride ·nnecticut
Metcalf Eddy, Inc.
March 2007

AOC/Sample ID	Sample Depth	Criteria Exceeded and Parameter(s) in Exceedence		
		Parameter(s) Exceeding R DEC	Parameter(s) Exceeding I/C DEC	Parameter(s) Exceeding GB PMC
(AOC-6) PX-GP-3	2-2.5	Arsenic	Arsenic	None
(AOC-6) PX-GP-3	2.5-4	Arsenic	Arsenic	None
(AOC-6) PX-GP-3	4-5.5	None	None	None
(AOC-6) PX-GP-1	2.5-4	None	None	None
(AOC-6) PX-GP-1	4-5.5	Lead	None	None
AOC-10-SS-01	0-0.5	None	None	Lead*
AOC-10-SS-02	0-0.5	PAHs	None	Silver*, Chromium*, Copper*, Nickel*, Lead* Vanadium*, PAHs (mass)
AOC-11-SS-01DUP	0-0.5	ETPH	None	Chromium*, Nickel*, Lead*, Vanadium*
AOC-11-SS-01	0-0.5	ETPH	None	Chromium*, Nickel*, Lead*, Vanadium*, Silver*
AOC-11-SS-02	0-0.5	ETPH	None	Beryllium*, Chromium*, Lead*, Vanadium*
AOC-11-SB-02 2-4	2-4	Lead	None	Barium*, Chromium*, Vanadium*
AOC-11-SB-02 8-10	8-10	None	None	Chromium, Lead*, Vanadium*
AOC-11-SB/MW-01 4-6	4-6	None	None	Barium*, Beryllium*, Chromium*, Nickel*, Lead*
AOC-11-SB/MW-01 8-10	8-10	None	None	Chromium*, Nickel*, Lead*, Vanadium*
AOC-13-SS-01	0-0.5	None	None	Chromium*, Lead*, Vanadium*
AOC-13-SB-01 2-4	2-4	None	None	Barium*, Beryllium, Chromium*, Lead* Vanadium*
AOC-13-SB-01 4-6	4-6	None	None	Chromium*, Lead*, Vanadium*
AOC-15-SS-01	0-0.5	None	None	Antimony*, Beryllium*, Copper*, Nickel*, Lead* Vanadium*
AOC-15-SS-02 DUP	0-0.5	PAHs	None	Chromium*, Copper*, Nickel*, Lead*, Vanadium*, PAHs (mass)
AOC-15-SS-02	0-0.5	PAHs	None	Silver*, Chromium*, Copper*, Nickel*, Lead*, Vanadium*, PAHs (mass)
AOC-15-SS-03	0-0.5	Copper, PAHs	PAHs	Antimony*, Barium*, Chromium*, Nickel*, Lead*, Silver* Vanadium*
AOC-15-SS-04	0-0.5	None	None	Chromium*, Nickel*, Lead*, Vanadium*
AOC-15-SS-05	0-0.5	None	None	Chromium*, Lead*, Nickel*, Vanadium*
AOC-15-SB-01 2-4	2-4	None	None	Chromium*, Lead*, Vanadium*
AOC-15-SB-02- 2-4	2-4	None	None	Lead*, Vanadium*
AOC-15-SB/MW-03 4-6	4-6	None	None	Barium*, Chromium*, Nickel*, Lead*, Vanadium*
AOC-15-SB/MW-03 2-4	2-4	PAHs, ETPH	PAHs	Chromium*, Nickel*, Lead*, Vanadium* PAHs (mass)
AOC-15-SB-04 2-4	2-4	None	None	Chromium*, Lead*, Vanadium*
AOC-15-SB-05 2-4	2-4	PAHs	None	Chromium*, Lead*, Vanadium*, PAHs (mass)
(AOC-15) MW-9	2'	TPH	None	Metals (mass analysis)

Table 5 - Summary of RSR Exceedances in Soil
International Sil· `ompany, Factory H
Meride, ,nnecticut
Metcalf Eddy, Inc.
March 2007

		Criteria Exceeded and Parameter(s) in Exceedence		
AOC/Sample ID	Sample Depth	Parameter(s) Exceeding R DEC	Parameter(s) Exceeding I/C DEC	Parameter(s) Exceeding GB PMC
(AOC-15) MW-9	7'	None	None	**Metals (mass analysis)**
AOC-17-SS-01	0-0.5	None	None	**Chromium*, Copper*, Nickel*, Lead*, Antimony*, Vanadium***
AOC-17-SS-02	0-0.5	**Arsenic, Vanadium**	**Arsenic**	**Arsenic* SPLP Lead, SPLP Antimony**
AOC-17-SB-01 5-7	5-7	None	None	**Chromium*, Lead*, Vanadium***
AOC-17-SB-01 12-14	12-14	None	None	**None**
AOC-17-SB-02 2-4	2-4	None	None	**Antimony*, Chromium*, Lead*, Vanadium***
AOC-17-SB-02 14-16	14-16	**Tetrachloroethylene**	None	**Tetrachloroethylene, Trichloroethylene (mass)**
AOC-17-SB-02 18-20	18-20	**Tetrachloroethylene**	None	**Tetrachloroethylene, Trichloroethylene (mass)**
(AOC-17) MW-6	N/A	Groundwater only	Groundwater only	Groundwater only
(AOC-17) MW-1	N/A	Groundwater only	Groundwater only	Groundwater only
AOC-19-SB-02 2-4	2-4	**Lead**	None	**SPLP Lead**
AOC-19-SB2 7-9	7-9	**ETPH**	**ETPH**	**ETPH (mass) Chromium*, Nickel, Lead*, Vanadium***
AOC-19-SB3 2-4	2-4	**PAHs**	None	**Nickel*, Lead*, vanadium* Chromium***
AOC-19-SB3-8-10	8-10	None	None	**Nickel*, Lead*, Vanadium***
AOC-19-SB/MW-01 2-4	2-4	**Copper, PAHs**	None	**Chromium*, Copper*, Nickel*, Lead*, Silver*, Vanadium*, PAHs (mass)**
AOC19-SB/MW-01 5-7	5-7	None	None	**Chromium*, Nickel*, Lead*, Vanadium***
(AOC19) HS-D	No data	None	None	None
(AOC 19) HS-C	No data	None	None	None
(AOC 19) PX-GP-15	2-2.5	**Copper**	None	None
(AOC 19) PX-GP-15	2.5-4	None	None	None
(AOC 19) PX-GP-15	4-5.5	**Copper**	None	None
(AOC 19) PX-GP-2	2-2.5	None	None	None
(AOC 19) PX-GP-2	2.5-4	None	None	None
(AOC 19) PX-GP-2	4-5.5	**Copper**	None	None
(AOC 19) PX-GP-14	2-2.5	**Copper**	None	None
(AOC 19) PX-GP-14	2.5-4	**Copper**	None	None
(AOC 19) PX-GP-14	4-5.5	None	None	None
(AOC 21) MW-5	N/A	GW only (no soil)	GW only (no soil)	GW only (no soil)
(AOC 21) MW-3	N/A	GW only (no soil)	GW only (no soil)	GW only (no soil)
AOC-24-SS-01	0-0.5	**PAHs**	**PAHs**	None

Table 5 - Summary of RSR Exceedances in Soil
International Sil' ompany, Factory H
Merider nnecticut
Metcalf Eddy, Inc.
March 2007

AOC/Sample ID	Sample Depth	Criteria Exceeded and Parameter(s) in Exceedence		
		Parameter(s) Exceeding R DEC	Parameter(s) Exceeding I/C DEC	Parameter(s) Exceeding GB PMC
AOC-24-SB/MW-01 2-4	2-4	**PAHs**	**PAHs**	**Trichloroethylene (mass)**
AOC-24-SB/MW-01 4-6	4-6	None	None	None
AOC-30-SS-01	0-0.5	None	None	None
AOC-30-SS-01DUP	0-0.5	None	None	None
AOC-30-SB/MW-01 2-4	2-4	None	None	None
AOC-30-SB/MW-01 5-7	5-7	None	None	None
AOC-SA-C-SS-01	0-0.5	**Antimony**	None	**SPLP Lead, SPLP Antimony**
AOC-SA-C-SB-01 2-4	2-4	None	None	**Chromium*, Nickel*, Lead*, Antimony*, Vanadium***
AOC-SA-E-SB-01 0-2	0-2	None	None	None
AOC-SA-E-SB-01 2-4	2-4	None	None	**Beryllium*, Chromium*, Nickel*, Lead*, Vanadium***
(AOC-SA-E)-S-1	1	**Copper, Nickel, ETPH**	**Nickel, ETPH**	**ETPH**
AOC-SA-H-SB-01 0-2	0-2	None	None	**Lead*, Vanadium***
AOC-SA-H-SB-01 2-4	2-4	None	None	**Lead*, Vanadium***
(AOC-SA-H) S-2	No data	**ETPH**	**ETPH**	**ETPH (mass)**
AOC-SA-M-SB-01 0-2	0-2	**PAHs**	**PAHs**	Chromium*, Copper*, Nickel*, Lead*, Vanadium*
AOC-SA-M SB-01 2-4	2-4	None	None	Beryllium*, Chromium*, Lead*, Vanadium*
AOC-SA-M-SB-02	0-1	None	None	Barium*, Chromium*, Nickel*, Lead*, Vanadium*
(AOC-SA-M) -MW-11	2	**Thallium**	None	None
(AOC-SA-M) -MW-12	2	**TPH**	**TPH**	**TPH**
AOC-SA-N-SS-01	0-0.5	None	None	Lead*
AOC-SA-N-SS-02	0-0.5	None	None	Lead*
AOC-SA-O-SB-01 0-2	0-2	**ETPH**	None	Antimony*, Chromium*, Silver*, Nickel*, Lead*, Mercury* Vanadium*
AOC-SA-O-SB-01 2-4	2-4	None	None	Barium*, Nickel*, Chromium*, Lead*, Vanadium*
AOC-SA-P-SS-01	0-0.5	None	None	None
AOC-SA-P-SS-02	0-0.5	None	None	None
AOC-SA-T-SS-01	0-0.5	None	None	Lead*
AOC-SA-T-SS-03	0-0.5	**Lead**	None	None
AOC-SA-T-SS-04	0-0.5	None	None	Lead*
AOC-25- MW-100	11.5-13.5	None	None	None
AOC-25-MW-107	6-8	None	None	None

(AOC #) - Sample from Prior Investigation; * indicates an exceedance of the GBPMC X 20 Screening Method only, not an actual GB PMC exceedance

TABLE 6 -SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL DATA
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC.
March 2007

Parameter	RSR Criteria			AOC-1		AOC-3		AOC-3		AOC-3		AOC-11		AOC-13	
	I/C VC	RES VC	SWPC	MW-10		MW-03		MW-03DUP		AOC-03-MW-01MS/MSD		AOC-11-MW-1		MW-14	
Sampling Date				4/14/06		4/14/06		4/14/06		4/14/06		4/17/06		4/14/06	
Laboratory Report Number				LIMS-96764		LIMS-96764		LIMS-96764		LIMS-96764		LIMS-96790		LIMS-96764	
8260 water (ug/l)															
sec-Butylbenzene	20,000	1,500	~	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Chlorodibromomethane	~	~	1,020	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Chloroform	62.0	26.0	14,100	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Chloromethane	5,500	390	~	<0.5	UJ	<0.5	UJ	<0.5	UJ	<0.5	UJ	<0.5	UJ	<0.5	UJ
1,1-Dichloroethane	41,000	3,000	~	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
1,1-Dichloroethylene	920	190	96.0	<0.5		<0.5		<0.5		0.7		<0.5		<0.5	
cis-1,2-Dichloroethylene	11,000	830	~	19.4		1.0		0.9		53.9		<0.5		<0.5	
trans-1,2-Dichloroethylene	13,000	1,000	~	0.6		0.7		0.8		1.0		<0.5		<0.5	
Isopropylbenzene	6,800	2,800	~	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
MTBE	50,000	21,000	~	<0.5		<0.5		<0.5		<0.5		2.3		<0.5	
Tetrachloroethylene	810	340	**88.0**	20.8	J	<0.5		<0.5		**126**	J	<0.5		12.6	J
1,1,1-Trichloroethane	16,000	6,500	62,000	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
1,1,2-Trichloroethane	2,900	220	1,260	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Trichloroethylene	67.0	27.0	2,340	15.1		<0.5		<0.5		95.0	J	<0.5		3.7	
1,1,2-Trichloro-1,2,2-Trifluoroethane	~	~	~	<1.0		<1.0		<1.0		1.7		<1.0		<1.0	
Vinyl Chloride	52.0	1.6	15,800	<0.5	UJ	<0.5	UJ	<0.5	UJ	2.3	J	<0.5	UJ	<0.5	UJ
o-Xylene	48,000	8,700	~	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
cyanide-total (mg/l)															
None detected	~	~	52	NT		NT		NT		<0.010		<0.010		NT	
etph water (mg/l)															
Extractable TPH (ETPH)	2500	500	~	1.40		<0.075		<0.075		<0.075		<0.075		<0.075	
metals(ga15)h2o (mg/l)															
Arsenic	~	~	**0.0040**	NT		<0.0005		<0.0005		<0.0005		**0.0041**		<0.0005	
Barium	~	~	~	NT		0.150		0.158		0.0725		0.118		0.0937	
Copper	~	~	0.480	NT		<0.0050		<0.0050		<0.0050		0.0107		0.0134	
Lead	~	~	0.013	NT		<0.015*		<0.015*		<0.015*		<0.015*		<0.015*	
Nickel	~	~	0.880	NT		<0.005		<0.005		<0.005		0.090		<0.005	
Selenium	~	~	0.05	NT		<0.05		<0.05		<0.05		<0.05		<0.05	
Zinc	~	~	**0.123**	NT		0.010	U	0.012	U	<0.010		0.056		<0.010	
pah - lo h2o all (ug/l)															
None detected	Varies	Varies	Varies	ND		ND		ND		ND		ND		NT	

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ~ = No Standard available
4. For water samples, shaded values exceed the RSR Volatilization (RES VC) criteria for the parameter.
5. For water samples, shaded and bold border
6. For water samples, bolded values exceed the RSR Surface Water (SWP) criteria for the parameter.
7. RSR criteria are in same units as analyte.
8. ND = Not detected above the reporting limit
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively imprecise.
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality control limits.
11. Volatilization criteria shown are based on CTDEP proposed revised criteria (CTDEP March 2003).

TABLE 6 -SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL DATA
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC.
March 2007

Parameter	RSR Criteria			AOC-15		AOC-17		AOC-17		AOC-17		AOC-17		AOC-19		AOC-24	
	I/C VC	RES VC	SWPC	AOC-15-MW-1		AOC-17-GW1		MW-1		MW-11		MW-12		AOC-19-MW-1		AOC-24-MW-01	
Sampling Date				4/17/06		3/29/06		4/17/06		4/14/06		4/14/06		4/17/06		4/14/06	
Laboratory Report Number				LIMS-96790		LIMS-96360		LIMS-96790		LIMS-96764		LIMS-96764		LIMS-96790		LIMS-96764	
8260 water (ug/l)																	
sec-Butylbenzene	20,000	1,500	~	<0.5		<0.5		1.7		<0.5		<0.5		<0.5		<0.5	
Chlorodibromomethane	~	~	1,020	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Chloroform	62.0	26.0	14,100	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5		1.4	
Chloromethane	5,500	390	~	<0.5		<0.5		<0.5	UJ	<0.5	UJ	<0.5	UJ	<0.5	UJ	0.5	J
1,1-Dichloroethane	41,000	3,000	~	<0.5		<0.5		<0.5		1.1		<0.5		<0.5		<0.5	
1,1-Dichloroethylene	920	190	96.0	<0.5		<0.5		3.1		<0.5		<0.5		<0.5		<0.5	
cis-1,2-Dichloroethylene	11,000	830	~	1.2		<0.5		32.5		80.8		0.6		<0.5		54.2	
trans-1,2-Dichloroethylene	13,000	1,000	~	<0.5		<0.5		9.0		2.1		<0.5		<0.5		1.2	
Isopropylbenzene	6,800	2,800	~	<0.5		<0.5		1.2		<0.5		<0.5		<0.5		<0.5	
MTBE	50,000	21,000	~	<0.5		<0.5		<0.5		<0.5		<0.5		<0.5		<0.5	
Tetrachloroethylene	810	340	**88.0**	1.4		4.9		1.3	J	**106.0**	J	15.2	J	<0.5		9.8	J
1,1,1-Trichloroethane	16,000	6,500	62,000	<0.5		<0.5		<0.5		1.2		<0.5		<0.5		<0.5	
1,1,2-Trichloroethane	2,900	220	1,260	<0.5		<0.5		<0.5		0.6		<0.5		<0.5		<0.5	
Trichloroethylene	67.0	27.0	2,340	8.3		3.9		11.2		32.6		3.6		<0.5		61.2	
1,1,2-Trichloro-1,2,2-Trifluoroethane	~	~	~	<1.0		<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
Vinyl Chloride	52.0	1.6	15,800	<0.5		<0.5		70.5	J	2.9	J	<0.5	UJ	<0.5	UJ	0.9	J
o-Xylene	48,000	8,700	~	<0.5		<0.5		1.1		<0.5		<0.5		<0.5		<0.5	
cyanide-total (mg/l)																	
None detected	~	~	52	NT		NT		NT		NT		NT		<0.010		NT	
etph water (mg/l)																	
Extractable TPH (ETPH)	2500	500	~	<0.075		NT		NT		NT		NT		0.140		<0.075	
metals(ga15)h2o (mg/l)																	
Arsenic	~	~	**0.0040**	<0.0005		NT		<0.0005		<0.0005		<0.0005		<0.0005		NT	
Barium	~	~	~	0.0852		NT		0.0620		0.0599		0.0821		0.113		NT	
Copper	~	~	0.480	<0.0050		NT		0.0063		0.0075		<0.0050		0.0081		NT	
Lead	~	~	0.013	<0.015*		NT		<0.015*		<0.015		<0.015*		<0.015*		NT	
Nickel	~	~	0.880	<0.005		NT		<0.005		0.114		<0.005		0.011		NT	
Selenium	~	~	0.05	<0.05		NT		<0.05		<0.05		<0.05		<0.05		NT	
Zinc	~	~	**0.123**	0.011		NT		0.014		**0.528**		0.014	U	0.013		NT	
pah - lo h2o all (ug/l)																	
None detected	Varies	Varies	Varies	ND		NT		NT		NT		NT		ND		ND	

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ~ = No Standard available
4. For water samples, shaded values exceed the RSR Volatilization (RES VC) criteria for the parameter.
5. For water samples, shaded and bold border
6. For water samples, bolded values exceed the RSR Surface Water (SWP) criteria for the parameter.
7. RSR criteria are in same units as analyte.
8. ND = Not detected above the reporting limit
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively imprecise.
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality control limits.
11. Volatilization criteria shown are based on CTDEP proposed revised criteria (CTDEP March 2003).

TABLE 6 -SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL DATA
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC.
March 2007

Parameter	RSR Criteria			non-specific		AOC - 25								AOC - 25	
	I/C VC	RES VC	SWPC	MW-13		MW-100		MW-101		MW-102		MW-103		MW-104	
Sampling Date				4/14/06		11/29/06		11/29/06		11/29/06		11/29/06		11/29/06	
Laboratory Report Number				LIMS-96764		LIMT-02065		LIMT-02065		LIMT-02065		LIMT-02065		LIMT-02065	
8260 water (ug/l)															
sec-Butylbenzene	20,000	1,500	~	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
Chlorodibromomethane	~	~	1,020	<0.5		<0.5		<0.5		1.7		<0.5		<0.5	
Chloroform	62.0	26.0	14,100	<0.5		3.4		2.4		<2.0		<2.0		<2.0	
Chloromethane	5,500	390	~	<0.5	UJ	<2.0		<2.0		<2.0		<2.0		<2.0	
1,1-Dichloroethane	41,000	3,000	~	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-Dichloroethylene	920	190	96.0	<0.5		<1.0		15.8		1.70		<1.0		<1.0	
cis-1,2-Dichloroethylene	11,000	830	~	<0.5		5.9		1,650		81.6		5.50		<1.0	
trans-1,2-Dichloroethylene	13,000	1,000	~	<0.5		<1.0		71.5		4.5		<1.0		<1.0	
Isopropylbenzene	6,800	2,800	~	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
MTBE	50,000	21,000	~	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
Tetrachloroethylene	810	340	**88.0**	<0.5		**268**		**729**		**676**		44.7		3.2	
1,1,1-Trichloroethane	16,000	6,500	62,000	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1,2-Trichloroethane	2,900	220	1,260	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
Trichloroethylene	67.0	27.0	2,340	9.2		240		1,840		92.0		22.6		3.6	
1,1,2-Trichloro-1,2,2-Trifluoroethane	~	~	~	<1.0		<5.0		<5.0		<5.0		<5.0		<5.0	
Vinyl Chloride	52.0	1.6	15,800	<0.5	UJ	<2.0*		230		15.6		<2.0*		<2.0*	
o-Xylene	48,000	8,700	~	<0.5		<1.0		<1.0		<1.0		<1.0		<1.0	
cyanide-total (mg/l)															
None detected	~	~	52	NT		NT		NT		NT		NT		NT	
etph water (mg/l)															
Extractable TPH (ETPH)	2500	500	~	<0.075		NT		NT		NT		NT		NT	
metals(ga15)h2o (mg/l)															
Arsenic	~	~	**0.0040**	0.0010		NT		NT		NT		NT		NT	
Barium	~	~	~	0.0522		NT		NT		NT		NT		NT	
Copper	~	~	0.480	<0.0050		NT		NT		NT		NT		NT	
Lead	~	~	0.013	<0.015*		NT		NT		NT		NT		NT	
Nickel	~	~	0.880	<0.005		NT		NT		NT		NT		NT	
Selenium	~	~	0.05	0.05		NT		NT		NT		NT		NT	
Zinc	~	~	**0.123**	<0.010		NT		NT		NT		NT		NT	
pah - lo h2o all (ug/l)															
None detected	Varies	Varies	Varies	ND		NT		NT		NT		NT		NT	

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ~ = No Standard available
4. For water samples, shaded values exceed the RSR Volatilization (RES VC) criteria for the parameter.
5. For water samples, shaded and bold border
6. For water samples, bolded values exceed the RSR Surface Water (SWP) criteria for the parameter.
7. RSR criteria are in same units as analyte.
8. ND = Not detected above the reporting limit
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively imprecise.
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality control limits.
11. Volatilization criteria shown are based on CTDEP proposed revised criteria (CTDEP March 2003).

TABLE 6 -SUMMARY OF GROUNDWATER SAMPLE ANALYTICAL DATA
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC.
March 2007

Parameter	RSR Criteria			AOC - 25				AOC-30	
	I/C VC	RES VC	SWPC	MW-105	MW-106	MW-107	MW-DUP (MW-100)	AOC-30-MW-1	
Sampling Date				11/29/06	11/30/06	11/30/06	11/30/06	4/17/06	
Laboratory Report Number				LIMT-02065	LIMT-02065	LIMT-02065	LIMT-02065	LIMS-96790	
8260 water (ug/l)									
sec-Butylbenzene	20,000	1,500	~	<1.0	<1.0	<1.0	<1.0	<0.5	
Chlorodibromomethane	~	~	1,020	<0.5	<0.5	<0.5	<0.5	<0.5	
Chloroform	62.0	26.0	14,100	<2.0	<2.0	<2.0	3.50	<0.5	
Chloromethane	5,500	390	~	<2.0	<2.0	<2.0	<2.0	<0.5	UJ
1,1-Dichloroethane	41,000	3,000	~	<1.0	<1.0	<1.0	<1.0	<0.5	
1,1-Dichloroethylene	920	190	96.0	<1.0	<1.0	<1.0	<1.0	<0.5	
cis-1,2-Dichloroethylene	11,000	830	~	<1.0	<1.0	<1.0	5.90	<0.5	
trans-1,2-Dichloroethylene	13,000	1,000	~	<1.0	<1.0	<1.0	<1.0	<0.5	
Isopropylbenzene	6,800	2,800	~	<1.0	<1.0	<1.0	<1.0	<0.5	
MTBE	50,000	21,000	~	<1.0	<1.0	<1.0	<1.0	<0.5	
Tetrachloroethylene	810	340	**88.0**	<1.0*	1.2	<1.0*	**262**	<0.5	
1,1,1-Trichloroethane	16,000	6,500	62,000	<1.0	<1.0	<1.0	<1.0	<0.5	
1,1,2-Trichloroethane	2,900	220	1,260	<1.0	<1.0	<1.0	<1.0	<0.5	
Trichloroethylene	67.0	27.0	2,340	3.9	1.6	<1.0	**238.0**	<0.5	
1,1,2-Trichloro-1,2,2-Trifluoroethane	~	~	~	<5.0	<5.0	<5.0	<5.0	<1.0	
Vinyl Chloride	52.0	1.6	15,800	<2.0*	<2.0*	<2.0*	<2.0*	<0.5	UJ
o-Xylene	48,000	8,700	~	<1.0	<1.0	<1.0	<1.0	<0.5	
cyanide-total (mg/l)									
None detected	~	~	52	NT	NT	NT	NT	NT	
etph water (mg/l)									
Extractable TPH (ETPH)	2500	500	~	NT	NT	NT	NT	<0.075	
metals(ga15)h2o (mg/l)									
Arsenic	~	~	**0.0040**	NT	NT	NT	NT	NT	
Barium	~	~	~	NT	NT	NT	NT	NT	
Copper	~	~	0.480	NT	NT	NT	NT	NT	
Lead	~	~	0.013	NT	NT	NT	NT	NT	
Nickel	~	~	0.880	NT	NT	NT	NT	NT	
Selenium	~	~	0.05	NT	NT	NT	NT	NT	
Zinc	~	~	**0.123**	NT	NT	NT	NT	NT	
pah - lo h2o all (ug/l)									
None detected	Varies	Varies	Varies	NT	NT	NT	NT	NT	

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ~ = No Standard available
4. For water samples, shaded values exceed the RSR Volatilization (RES VC) criteria for the parameter.
5. For water samples, shaded and bold border
6. For water samples, bolded values exceed the RSR Surface Water (SWP) criteria for the parameter.
7. RSR criteria are in same units as analyte.
8. ND = Not detected above the reporting limit
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively imprecise.
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality control limits.
11. Volatilization criteria shown are based on CTDEP proposed revised criteria (CTDEP March 2003).

TABLE 7
SUMMARY OF GROUNDWATER CRITERIA EXCEEDANCES
FACTORY H PHASE II/III ENVIRONMENTAL SITE ASSESSMENT
MERIDEN, CONNECTICUT
METCALF AND EDDY, INC
March 2007

Parameter	RSR Criteria			AOC-3		AOC-11		AOC-24		AOC-17				AOC - 25					
	I/C VC	RES VC	SWPC	AOC-03-MW-01MS/MSD		AOC-11-MW-1		AOC-24-MW-01		MW-1		MW-11		MW-100		MW-101		MW-102		MW-DUP (MW-100)	
Sampling Date				4/14/06		4/17/06		4/14/06		4/17/06		4/14/06		11/29/06		11/29/06		11/29/06		11/30/06	
Laboratory Report Number				LIMS-96764		LIMS-96790		LIMS-96764		LIMS-96790		LIMS-96764		LIMT-02065		LIMT-02065		LIMT-02065		LIMT-02065	
8260 water (ug/l)																					
cis-1,2-Dichloroethylene	11,000	830	~	53.9		<0.5		54.2		32.5		80.8		5.9		1,650		81.6		5.90	
Tetrachloroethylene	810	340	**88.0**	**126**	J	<0.5		9.8	J	1.3	J	**106.0**	J	**268**		**729**		**676**		**262**	
Trichloroethylene	67.0	27.0	2,340	95.0	J	<0.5		61.2		11.2		32.6		240		1,840		92.0		238.0	
Vinyl Chloride	52.0	1.6	15,800	2.3	J	<0.5	UJ	0.9	J	70.5	J	2.9	J	<2.0*		230		15.6		<2.0*	
cyanide-total (mg/l)																					
None detected	~	~	52	<0.010		<0.010		NT		NT		NT		NT		NT		NT		NT	
etph water (mg/l)																					
Extractable TPH (ETPH)	2500	500	~	<0.075		<0.075		<0.075		NT		NT		NT		NT		NT		NT	
metals(ga15)h2o (mg/l)																					
Arsenic	~	~	**0.0040**	<0.0005		**0.0041**		NT		<0.0005		<0.0005		NT		NT		NT		NT	
Lead	~	~	0.013	<0.015*		<0.015*		NT		<0.015*		<0.015*		NT		NT		NT		NT	
Zinc	~	~	**0.123**	<0.010		0.056		NT		0.014		**0.528**		NT		NT		NT		NT	
pah - lo h2o all (ug/l)																					
None detected	Varies	Varies	Varies	ND		ND		ND		NT		NT		NT		NT		NT		NT	

Notes:
1. An asterisk (*) following a detection limit indicates that the minumum laboratory reporting limit exceeds one or more of the regulatory criteria.
2. NT = Not tested.
3. ~ = No Standard available
4. For water samples, shaded values exceed the RSR Volatilization (RES Vol.) criteria for the parameter.
5. For water samples, shaded and bold border values exceed the RSR Volatilization (I/C Vol.) criteria
6. For water samples, bolded values exceed the RSR Surface Water (SWP) criteria for the parameter.
7. RSR criteria are in same units as analyte.
8. ND = Not detected above the reporting limit
9. J = the associated value is an estimated quantity. The reported result is qualitatively accurate but quantitatively imprecise.
10. UJ = the compound was analyzed for, but was not detected, and the associated value is an estimated value due to the variance from quality control limits.

TABLE 8. SUMMARY OF DAT ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96392	All	Soil	Zinc equipment blank contamination 0.014 mg/kg	U for detected samples <5x the blank contamination. None for non-detects
96392	All samples in batch	Soil	Low lab control sample recovery (29.3 % 2-butanone, control limit 50-155 %; 14.8 % 2,2-dichloropropane; 8.6 % 2-hexanone; 64.6 % naphthalene, control limit 70-130 %)	J (detects), UJ (non-detects)
96356	AOC-15-SB4 2-4, AOC-15-SB5 2-4	Soil	Low PAH surrogate recovery (2-fluorobiphenyl 26.6 % and 23.2 %, respectively, control limit 30-130 %)	J (detects), UJ (non-detects)
96356	AOC-30-MW1 5-7	Soil	Low ETPH surrogate recovery (terphenyl 46.2 %, control limit 50-150 %)	J (detects), UJ (non-detects)
96356	AOC-30-SS1	Soil	Volatile organic matrix spike recoveries and/or RPDs outside control limits (1,4-dichlorobenzene, ethyl benzene, naphthalene, styrene, tetrachloroethylene, 1,1,2-trichloro-1,2,2-trifluoroethane, o-xylene, m&p-xylene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, methylene choride, chlorobenzene, cis-1,3-dichloropropene, trans-1,3-dichloropropene, bromoform, 2-chlorotoluene, hexachlorobutadiene, isopropylbenzene, p-isopropylbenzene, n-isopropylbenzene, sec-butylbenzene, tert-butylbenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, 4-	J (detects), UJ (non-detects)

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RPD = Relative Percent Difference
J = detected samples estimated
UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT. ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96356	AOC-30-SS1	Soil	chlorotoluene, 1,2,3-trichloropropane, n-butylbenzene, bromobenzene, trans- 1,4-dichloro-2-butene, 1,2-dibromo-3-chloropropane, tert-butyl alcohol, matrix spike recovery control limits vary with analyte; RPD control limit < 50 %)	J (detects), UJ (non-detects)
96356	All samples in batch	Soil	Low lab control sample recovery (46.9 % methylene chloride, control limit 70-130 %)	J (detects), UJ (non-detects)
96357	AOC-11 SS1, AOC-11 SS1 DUP	Soil	High field duplicate RPD (silver 87.45 %, lead 51.5 %, control limit < 50 %)	J (detects), UJ (non-detects)
96357	AOC-11SS1	Soil	Volatile organic matrix spike recoveries and/or RPDs outside control limits (1,4-dichlorobenzene, MIBK, naphthalene, styrene, 1,2-dichlorobenzene, 1,3-dichlorobenzene, trans-1,2-dichloroethylene, vinyl chloride, methylene chloride, chlorobenzene, chloromethane, cis-1,3-dichloropropene, trans-1,3-dichloropropene, bromoform, 2-chlorotoluene, hexachlorobutadiene, n-propylbenzene, 1,2,3-trichlorobenzene, 1,2,4-trichlorobenzene, 4-chlorotoluene, dibromomethane, 1,1-dichloropropene, 1,2,3-trichloropropane, n-butylbenzene, dichlorodifluoromethane, bromobenzene, 2-hexanone, trans-1,4-dichloro-2-butene, 1,2-dibromoethane. matrix spike recovery control limits vary with analyte; RPD control limit < 50 %)	J (detects), UJ (non-detects)

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J = detected samples estimated
UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96662	All samples in batch	Soil	Low lab control sample recovery (10.3 % 2,2-dichloropropane, 14.4 % tert-butyl alcohol, control limit 70-130 %)	J (detects), UJ (non-detects)
96662	AOC-1-SB 1 6-6	Soil	Low matrix spike recovery (2,2-dichloropropane 12.1 %, tertiary butyl alcohol 9.6 %, naphthalene 65.9 %, bromo-methane 64.2 %, 1,2,4-trichlorobenzene 68.0 %, di-chlorodifluoromethane 59.3 %, control limit 70-130 %)	J (detects), UJ (non-detects)
96737	All samples in batch	Soil	Antimony method blank contamination 0.0035 mg/kg	U for detected samples <5x the blank contamination. None for non-detects
96698	AOC-2-SB1 6-8	Soil	Methylene chloride method blank contamination 2.5 ug/kg	U for detected samples <5x the blank contamination. None for non-detects
96698	AOC-2-SB1 6-8	Soil	Low lab control sample recovery (61.2 % naphthalene, 69.2 % 1,2,3-trichlorbenzene, 52.4 % 2,2-dichloropropane, control limit 70-130 %)	J (detects), UJ (non-detects)
96698	AOC-2-SB1 6-8	Soil	Low matrix spike recovery (ethylbenzene 40.2 %, styrene 62.2 %, m&p xylene 6.4 %, vinyl chloride 63.1 %, chloromethane 68.4 %, isopropylbenzene 0.0 %, p-isopropyltoluene -58.5 %, n-propylbenzene 0.0 %, sec-butylbenzene 0.0 %, 1,2,4-trimethylbenzene -3.4 %, 1,1-dichloropropene 50.7 %, n-butylbenzene -9.3 %, dichlorodifluoromthane 38.4 %, control limit 70-130 %)	J (detects), UJ (non-detects)

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J = detected samples estimated
UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT. ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96668	All samples in batch	Soil	Antimony, barium, and copper method blank contamination 0.0015 mg/kg, 0.28 mg/kg, and 0.03 mg/kg, respectively	U for detected samples <5x the blank contamination. None for non-detects
96668	AOC-11SB2 8-10	Soil	Low matrix spike recovery (thallium 67.48 %, control limit 80-120 %)	J (detects), UJ (non-detects)
96679	AOC-5 SB2 2-4	Soil	Low matrix spike recovery (copper 30.57 %, control limit 70-130 %)	J (detects), UJ (non-detects)
96388	AOC-15-SS2	Soil	Low matrix spike and/or matrix spike duplicate recovery (hexachlorobutadiene 41.3 %, 1,2,4-trichlorobenzene 44.6 %, dichlorodifluoromethane 45.1 %, naphthalene 43.30 %, chloromethane 66.7 %/63.4 %, 1,2,3-trichlorobenzene 30.6 %, control limit 70-130 %)	J (detects), UJ (non-detects)
96388	All samples in batch	Soil	Low lab control sample recovery (49.2 % dichlorodifluoromethane, control limit 50-155 %)	J (detects), UJ (non-detects)
96388	AOC-15-SS2	Soil	Low matrix spike and/or matrix spike duplicate recovery (benzo(a)anthracene 39.15 %, benzo(b)fluoronthene 33.60 %, fluoranthene 27.55 %/39.25 %, pyrene 31.30 %, control limit 40-140 %)	J (detects), UJ (non-detects)
96388	AOC-RB1 2-4, AOC-RB2 2-4	Soil	Low PAH surrogate recovery (2-fluorobiphenyl 14.0 % and 21.9 %, respectively, control limit 30-130 %)	J (detects), UJ (non-detects)
96388	AOC-15-SS2	Soil	Low matrix spike and matrix spike duplicate recovery (mercury 44.447 %/18.917, control limits 75-125 %)	J (detects), UJ (non-detects)

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UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT. ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96388	AOC-SAN-SS1	Soil	High matrix spike recovery (lead 169.12 %, control limit 75-125 %)	J (detects)
95358	AOC-13 SB1 2-4, AOC-1-SB1 6-6, AOC-24-MW1 4-6	Soil	Low ETPH surrogate recovery (terphenyl 45.9 %, 32.2 %, and 7.9 %, respectively, control limit 50-150 %)	J (detects), UJ (non-detects)
95358	AOC-5-SB2 2-4	Soil	Low matrix spike recovery (silver 69.05 %, antimony 46.81 %, control limit 70-130 %)	J (detects), UJ (non-detects)
95358	AOC-5-SB2 2-4	Soil	High matrix spike recovery (copper 276.52 %, control limit 70-130 %)	J (detects)
95358	All samples in batch	Soil	High lab control sample recovery (135.4 % tetrachloroethylene, control limit 70-130 %)	J (detects)
95358	AOC-1-SB1 6-6	Soil	Low surrogate recovery (bromofluorobenzene 67.4 %, control limit 70-130 %)	J (detects), UJ (non-detects)
96359	AOC-17-SS1	Soil	High matrix spike recovery (copper 207.59 %, control limit 70-130 %)	J (detects)
96359	AOC-17-SS1	Soil	Low matrix spike recovery (antimony 32.59 %, control limit 70-130 %)	J (detects), UJ (non-detects)
97315	AOC-SA-M-SB-02	Soil	Low matrix spike recovery (antimony 28.34 %, control limit 70-130 %)	J (detects), UJ (non-detects)
97200	MW-1	Product	Holding time exceedence (method 8015)	J (detects), UJ (non-detects)

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J = detected samples estimated
UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT. ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
96790	All samples in batch	Groundwater	Low lab control sample recovery (25.4 % 1,4-dioxane, 61.5 % vinyl chloride, 56.4 % methlylene chloride, 58.9 % chloromethane, 40.0 % dichlorodifluoromethane, control limit 70-130 %; 50-155 % for 1,4-dioxane)	J (detects), UJ (non-detects)
96790	All samples in batch	Groundwater	High lab control sample recovery (186.3 % tetrachloroethylene, control limit 70-130 %)	J (detects)
96764	All samples in batch	Groundwater	Zinc method blank contamination 0.020 mg/L	U for detected samples <5x the blank contamination None for non-detects
96764	All sample in batch	Groundwater	Methylene chloride trip blank contamination 2.8 ug/L	U for detected samples <5x the blank contamination None for non-detects
96764	AOC-03-MW-01	Groundwater	Low matrix spike and matrix spike duplicate recovery (trichloroethylene 48.1 %/57.7 %, control limit 70-130 %)	J (detects), UJ (non-detects)
96764	All samples in batch	Groundwater	Low lab control sample recovery (66.9 % vinyl chloride, 63.4 % methylene choride, 63.9 % chlorormethane, 41.3 % dichlorodifluoromethane, control limit 70-130 %)	J (detects), UJ (non-detects)
96764	All samples in batch	Groundwater	High lab control sample recovery (192.5 % tetrachloroethylene, control limit 70-130 %)	J (detects)
96360	All samples in batch	Groundwater	Low lab control sample recovery (2,2-dichloropropane 12.7 %, control limit 70-130 %)	J (detects), UJ (non-detects)

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RPD = Relative Percent Difference
J = detected samples estimated
UJ = undetected samples estimated

TABLE 8. SUMMARY OF DAT. ALIDATION QUALIFICATIONS
Phase II/III Environmental Investigation
International Silver Company, Factory H Site
Meriden, CT

Report #	Qualified Sample(s)	Matrix	Description	Qualification
02065	All samples in batch	Groundwater	Low lab control sample recovery for 2-hexanone	J (detects), UJ (non-detects)
02065	MW-100, MW-100 DUP, MW-101, MW-102, MW-107	Groundwater	Low lab control sample recovery for dichlorodifluoromethane	J (detects), UJ (non-detects)
02065	MW-103, MW-104, MW-105, MW-106	Groundwater	Low lab control sample recovery for tetrahydrofuran	J (detects), UJ (non-detects)

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J = detected samples estimated
UJ = undetected samples estimated

TABLE 9 - CONCEPTUAL SITE MODEL
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Soil Evaluation						Groundwater Evaluation				Comments and Recommendations
		Samples	Sample Depths (ft)	# Subsurface Samples	# Surficial Samples	Soil - COCs	RSR Exceedances	Wells Sampled	# Samples	Groundwater - COCs	RSR Exceedances	
1	2 - 20,000-gallon USTs (pumped out)	AOC-1-SB-01 AOC-1-SB-02 AOC-1-SB-03	0-2', 2-4', 4-6', 6', 8-10', 10-12'(2)	7	None	ETPH, VOCs, & PAHs	*PAHs* > R DEC, I/DEC, 0-2', 2-4', 4-6'; *ETPH* > R DEC, I/C DEC 0-2' and 8-10', respectively	MW-10	0	ETPH, VOCs, & PAHs	None	Delineate area with 3-4 supplemental soil borings; evaluate PMC with SPLP analyses; VOCs were not detected above the RES DEC or the GWPC X 10 (self-implementing option), which is used to evaluate the PMC; remediate RSR exceedance soil and/or place ELUR on area in conjunction with redevelopment; remove tanks if still present.
2	1 - 1,000-gallon UST (pumped out)	AOC-2-SS1, AOC-2-SB-1	0-0.5', 5.5-6', 6-8'	2	1	ETPH, VOCs, & PAHs	*PAHs* > R DEC, I/DEC, 0-0.5', 5.5-6'; *PAHs* > GB PMC, 5.5-6' *ETPH* > R DEC, I/C DEC 0-0.5' and 6-8', respectively	0	0	--	None	Remediate RSR exceedance soil and/or place ELUR on areas in conjunction with redevelopment; remove tank if still present.
3	Former 1 - 10,000-gallon UST	AOC-3-SB/MW-01	2-4', 6-8'	2	0	ETPH, VOCs, PAHs, Metals and Cyanide	None	AOC-3-MW-01	1	ETPH, VOCs, PAHs, Metals and Cyanide	*TCE* and *vinyl chloride* > RES VC and I/C VC; *PCE* > SWPC	Install supplemental 2 wells to better delineate; monitor groundwater; potential ELUR; Weston (1999) detected TCE
4	1 UST of unknown size	Not addressed in this phase of the project					AEI 2006 tank grave data indicates no exceedances	0	0	--	--	No additional investigations recommended; use existing data to close out AOC; existing data indicates no exceedances; remove tank if present.
5	2 USTs of unknown size	AOC-5-SS-01, AOC-5-SB-01, AOC-5-SB-02, AOC-5-RB1, AOC-5-RB2	0-0.5', 2-4'(4), 9-11', 10-12'	6	1	ETPH, VOCs, & PAHs	*PAHs* > R DEC, I/DEC, GB PMC 0-0.5', 2-4' *ETPH* > R DEC 0-0.5', 2-4' and 9-11'	0	0	--	--	Advance 2-3 supplemental soil borings to better delineate extent to the south; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment. In conjunction with flood control evaluation, remove tanks if present.
6	5 USTs of unknown size	Addressed as part of AOC-19					Pre-existing soil data indicates; *Arsenic* > R DEC and I/C DEC at 0-2'; *Lead* > R DEC at 2-5.5'; *Copper* > R DEC 2-2.5'; *ETPH* and *PAHs* > R DEC 4-5.5'	0	0	--	--	Remediate in conjunction with AOC-19; remove tanks
7	2-200 gallon ASTs	AOC-7 not addressed in this phase of the project; tanks previously pumped out and removed						0	0	--	--	Utilizing existing documentation to close out AOC
8	1-1,500-gallon AST	AOC-8 not addressed in this phase of the project; tanks previously pumped out and removed						0	0	--	--	Utilizing existing documentation to close out AOC
9	2-300-gallon ASTs	AOC-9 not addressed in this phase of the project						0	0	--	--	Evaluate AOC using existing documentation during pre-demolition
10	1 - 150,000-gallon AST (Water tower)	AOC-10-SS-01, AOC-10-SS-02	0-0.5'(2)	None	2	Lead, PAHs	*PAHs* > R DEC and GB PMC 0-0.5'	0	0	--	--	Advance 2-3 supplemental soil borings to better delineate extent; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment; evaluate PMC with SPLP analyses; install well to evaluate water quality
11	11 - 55-gallon drums	AOC-11-SS-01, AOC-11-SS-02, AOC-11-SB-02, AOC-11-MW-01	0-0.5'(2), 2-4', 4-6', 8-10'(2)	4	2	ETPH, VOCs, & metals	*Total Lead* > R DEC 2-4'; *ETPH* > R DEC 0-0.5'	AOC-11-MW-1	1	ETPH, VOCs, metals and cyanide	*Total Arsenic* >SWPC	Advance 2-3 supplemental soil borings to better delineate extent; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment; continued groundwater monitoring recommended
12	Discharge pipes (to Harbor Brook)	AOC-12 not addressed in this phase of the project						0	0	--	--	Existing sediment data indicates impacts; evaluated during flood control evaluation
13	Dry well	AOC-13-01, AOC-13-SB-01	0-0.5', 2-4' and 4-6'	2	1	ETPH, VOCs, & metals	None	MW-14	1	ETPH, VOCs, & metals	None	soil vapor and groundwater samples collected by Weston (1998); VOC vapors < RSR criteria; VOCs in groundwater downgradient of drywell < 1996 GWVC, but TCE > 2003 RES GWVC and I/C GWVC; monitor groundwater plume
14	dust piles	AOC-14 not addressed in this phase of the project; addressed by the CT DEP stabilization/removal actions in 2005; confirmatory sample results not available for revie						0	0	--	--	Evaluate using existing documentation; remediate and/or place ELUR on area; combine with AOC-19
15	Debris piles	AOC-15-SS-01, AOC-15-SS-02, AOC-15-SS-03, AOC-15-SS-04, AOC-15-SS-05, AOC-15-SB-01, AOC-15-SB-02 AOC-15-MW-03, AOC-15-SB-04, AOC-15-SB-05	0-0.5'(5), 2-4'(5), 4-6'	6	5	ETPH, PAHs, VOCs, & metals	*PAHs* > R DEC, I/CDEC and GB PMC 0-0.5' and 2-4' ; *ETPH* > R DEC 2-4';*Total Copper* > R DEC 0-0.5'	AOC-15-MW-03	1	ETPH, PAHs, VOCs, & metals	None	AOC-15B - Delineate area with 5-6 supplemental soil borings; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment; existing AOC15C data indicates *TPH* > R DEC 2'; AOC-15C, investigate/remediate in conjunction with AOC-11.
16	debris pile - glass	AOC-16 was not addressed in this phase of the project						--	--	--	--	conduct visual inspect; combine with AOC-11
17	Contaminated soil	AOC-17-SS-01, AOC-17-SS-02, AOC-17-SB-01 AOC-17-SB-02	0-0.5'(2), 2-4', 5-7', 12-14', 14-16', 18-20'	5	2	VOCs, & metals	*Tetrachloroethylene* > R DEC, GB PMC 14-16', 18-20'; *Trichloroethylene* >GB PMC 14-16' and 18-20'; *Total Arsenic > R DEC,* I/C DEC 0-0.5' ; *Total Vanadium* > R DEC 0-0.5'; *SPLP lead and antimony* > GB PMC 0.0.5'	Existing Wells MW 1, MW-11, MW-12	3	VOCs, & metals	*Vinyl chloride* > R VC and I/C VC in MW-1; *Vinyl chloride* > R VC in MW-11; *Zinc* > SWPC in MW-11; *TCE* > R VC in MW-11; no exceedance in MW 12	Advance 3-4 supplemental soil borings to better delineate shallow soil contamination; install 2 wells to evaluate VOC plume source area and potential on-site migration of contaminated groundwater from an upgradient, off-site source area; evaluate the applicability of CT DEP's upgradient policy; remediate soil exceedances and/or place ELUR on area; VOCs detected (< RSR criteria) in soil in 1998 (Weston), TCE and PCE detected in soil vapor (Weston, 1998) > SVVC; Weston (1998) stated 5,600 ft² of chlorinated solvent VOC contaminated soil exists to 15 fbg. It is unclear if this soil has been remediated.
18	ETPH-stained surficial soil	Removed during CTDEP stabilization/removal actions conducted in 2005; investigated as part of AOC-1						0	0	--	--	See AOC-1 recommendations

TABLE 9 - CONCEPTUAL SITE MODEL
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Soil Evaluation						Groundwater Evaluation				Comments and Recommendations
		Samples	Sample Depths (ft)	# Subsurface Samples	# Surficial Samples	Soil - COCs	RSR Exceedances	Wells Sampled	# Samples	Groundwater - COCs	RSR Exceedances	
19	Contaminated soil	AOC-19-SB-02, AOC-19-SB-03, AOC-19-MW-01	2-4'(3), 5-7', 7-9', 8-10',	6	None	ETPH, PAHs, VOCs, & metals	*PAHs* > R DEC, I/C DEC and GB PMC 2-4' ; *Total Lead* > R DEC 2-4'; SPLP Lead > GB PMC 2-4';*Total Copper* > R DEC 2-4'; *ETPH* > R DEC, I/C DEC 7-9'	AOC-19-MW-1	1	ETPH, VOCs, PAHs, Metals and Cyanide	None	Remediate RSR exceedance soil and/or place ELUR on area in conjunction with redevelopment; existing data indicates copper > R DEC 2.5-5'
20	Contaminated wood floor	Not addressed in this phase of the project						0	0	--	--	Inspect floor for indications of a release; collect 4-6 samples for characterization; can be performed as part of pre-demolition work
21	Stained concrete	Not addressed in this phase of the project						0	0	--	--	Inspect concrete for indications of a release; collect 4-6 chip samples for characterization; can be performed as part of pre-demolition work
22	Asbestos debris pile	This AOC has been addressed by CTDEP stabilization/removal actions performed in 2005										Review existing data and close out AOC
23	Stained soil	Addressed as part of AOC-19 - removed during CTDEP stabilization activities.						0	0	--		Addressed as part of AOC-19.
24	Possible UST	AOC-24-SS-01, AOC-24-MW-01	0-0.5', 2-4', 5-7'	2	1	ETPH, VOCs, & PAHs	*PAHs* > R DEC, I/C DEC 0-0.5', 2-4'; *Trichloroethylene* > GB PMC 2-4'	AOC-24-MW-1	1	ETPH, VOCs, & PAHs	*TCE* > RES VC	Advance 4 supplemental soil borings to better delineate soil contamination; complete borings as nested (shallow and deep) well pairs to better evaluate horizontal and vertical extent of contaminated groundwater; In conjunction with AOC-17 and SA-M, evaluate the applicability of CT DEP's upgradient contaminated groundwater policy; remediate soil exceedances and/or place ELUR on area.
25	Groundwater Contamination On-Site	- - -	- - -	--	--	VOCs	- - -	13 site wells plus the eight VOC Plume Study wells (near eastern property boundary) sampled during this phase. Wells are located in AOC-1, AOC-3, AOC-11, AOC-13, AOC-17, AOC-19, AOC-24, AOC-25 and AOC-30; RSR exceedances were detected in AOC-3, AOC-11, AOC-17, AOC-24,				Sample representative wells for metals and VOCs under other AOCs to evaluate groundwater quality at the site. No additional work beyond sampling of these wells.
25	Groundwater Contamination along the Eastern Property Boundary	- - -	- - -	--	--	VOCs	- - -	MW-100, 101, 102, 103, 104, 105, 106 and 107	8	Chlorinated VOCs	(MW-100) - PCE > SWPC, TCE > RES VC and I/C VC; (MW-101) - cDCE and PCE >RES VC, TCE and vinyl chloride > RES VC and I/C VC; (MW-102) - PCE and vinyl chloride > RES VC, TCE > RES VC and I/C VC	Install two-three nested pairs (4-6 wells) upgradient to evaluate potential on-site migration of chlorinated VOC contaminated groundwater from an off-site source area; install two supplemental wells on residential property at end of Cherry Street to evaluate VC adjacent to residential structure; utilize data to address remedial options; CTDEP conducting separate investigation.
26	Contaminated surface water and sediments	Not addressed in this phase of the project										In conjunction with AOC-12, evaluate existing surface water and sediment data, including proposed sediment sample data
27	Asbestos-containing materials	Asbestos removal cost estimate completed for Building A; include in pre-demolition and or RAP phase of project										
28	Lead paint	See AOCs-N, Q, and T (Building interiors not included in this project); include in pre-demolition and or RAP phase of project										
29	Fluorescent light ballasts	Not addressed in this phase of project; include in pre-demolition and/or RAP phase of project										
30	Louie's Auto Shop (55 Cooper St.)	AOC-30-SS-01, AOC-30-MW-01	0-0.5', 2-4', 5-7'	2	1	ETPH and VOCs	None	AOC-30-MW-1	1	ETPH and VOCs	None	No exceedances; no additional investigation or remediation recommended at this time
31	Site-wide surficial soils	Use existing data and samples from other AOCs						--	--	--	--	See recommendations for specific AOCs
32	Building B - transformer/electrical house	Not addressed in this phase of the project						--	--	--	--	Address during pre-demolition activities.
33	Subsurface Soils and Groundwater Beneath Building A	Not addressed in this phase of the project						--	--	--	--	Conduct supplemental Phase II/III to evaluate soil and groundwater; test for VOCs, ETPH, PAHs, metals and PCBs
SA-A	Stabilization Area A Smokestack Removed	No Further Evaluation Required										
SA-B	Stabilization Area B Contaminated Soil Piles Removed (AOC-15)	Use data from AOC-15						--	--	See AOC-3 (SA-G)	--	In conjunction with AOC-15, delineate area with 5-6 supplemental soil borings; remediate RSR exceedance soil and/or place ELUR on area in conjunction with redevelopment
SA-C	Stabilization Area C Asphalt Piles Removed	AOC-SA-C-SS-01, AOC-SA-C-SB-01	0-0.5', 2-4'	1	1	ETPH, PAHs & metals	*Total Antimony* > R DEC 0-0.5'; *SPLP Lead* and *SPLP Antimony* > GB PMC	0	Downgradient well MW-3 (AOC-3) and upgradient wells MW-103 and MW-104 (AOC-25)	See AOC-3	None	Remediate RSR exceedance soil and/or place ELUR on area in conjunction with redevelopment
SA-D	Stabilization Area D Asbestos-Impacted Soil Removed	Address during pre-demolition activities						--	--	--		Address in pre-demolition and/or RAP (confirmatory soil sampling) phase
SA-E	Stabilization Area E Metal-Impacted Soil Removed	AOC-SA-E-SB-01	0-2', 2-4'	2	None	Metals	None	0	0	--	--	Evaluate PMC with SPLP analyses; close out AOC
SA-F	Stabilization Area F Impacted Soil Stockpile Staging Area #1 - Evaluate pre-stockpile conditions	Use data from AOC-15						--	--	--	--	See AOC-15 Recommendations
SA-G	Stabilization Area G 10,000-gal. Waste Water UST Removed (AOC-3)	See AOC-3						--	--	--	--	See AOC-3 Recommendations
SA-H	Stabilization Area H Metal-Impacted Soil Removed	AOC-SA-H-SB-01	0-2', 2-4'	2	None	ETPH, VOCs, & metals	None	--	--	--	None	Previous investigations identified ETPH > R DEC, I/C DEC and GB PMC in sample location S-2; advance 3-4 supplemental soil borings to delineate extent; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment
SA-I	Stabilization Area I Impacted Soil Stockpile Staging Area #2 (Part of AOC-15) - Evaluate pre-stockpile conditions	Use data from AOC-15						--	--	--	--	See AOC-15 Recommendations
SA-J	Stabilization Area J - 275 gal. gasoline UST Removed (AOC-4)	See AOC-4						--	--	--	--	See AOC-4 Recommendations

TABLE 9 - CONCEPTUAL SITE MODEL
International Silver Company, Factory H
Meriden, Connecticut
Metcalf & Eddy, Inc.
March 2007

No.	Area of Concern	Soil Evaluation						Groundwater Evaluation				Comments and Recommendations
		Samples	Sample Depths (ft)	# Subsurface Samples	# Surficial Samples	Soil - COCs	RSR Exceedances	Wells Sampled	# Samples	Groundwater - COCs	RSR Exceedances	
SA-K	Stabilization Area K Oil-Stained Soil removed (AOC-18)	See AOC-18						--	--	--	--	See AOC-18 Recommendations
SA-L	Stabilization Area L 2-20,000-gal. #6 Oil Tanks Cleaned (AOC-1)	See AOC-1						--	--	--	--	See AOC-1 Recommendations
SA-M	Stabilization Area M Impacted-Soil and Fire Debris Pile Removed (AOC-15)	AOC-SA-M-SB-01, AOC-SA-M-SB-02	0-1', 2-4'	2	None	ETPH, PAHs, VOCs, & metals	*PAHs* > R DEC, I/C DEC 0-2'	--	--	--	--	Investigate in conjunction with AOC-24
SA-N	Stabilization Area N Building "C" Asbestos and Lead Abatement Work	AOC-SA-N-SS-01, AOC-SA-N-SS-02	0-0.5'(2)	None	2	Asbestos and Total Lead	None; trace amounts of chrysotile and anosite	--	--	--	--	No exceedances; no additional investigation or remediation recommended at this time
SA-O	Stabilization Area O Impacted-Soil and Debris Pile Removed	AOC-SA-O-SB-01, AOC-SA-O-SS-02	0-2', 2-4'	2	None	ETPH, VOCs, & metals	*ETPH* > R DEC 0-2'	--	--	--	--	Advance 3-4 supplemental soil borings to better delineate extent; remediate soil exceedances and/or place ELUR on area in conjunction with redevelopment
SA-P	Stabilization Area P Asbestos Roof Removed from UST Bunker	AOC-SA-P-SS-01, AOC-SS-P-SS-02	0-0.5'(2)	None	2	Asbestos	None	--	--	--	--	No exceedances; no additional investigation or remediation recommended at this time
SA-Q	Stabilization Area Q Building "B" Asbestos and Lead Abatement Work	Not addressed in this phase of the project; surficial soil adjacent to building removed						--	--	--	--	Review existing data and close out AOC.
SA-R	Stabilization Area R Metals-Impacted Soils Removed and Stone Cover Installed (AOC-6)	Addressed as part of AOC-19 and AOC-14										
SA-S	Stabilization Area S Sump Cleaned of Metal-Impacted Sludge	Use data from AOC-19									--	See AOC-19 Recommendations
SA-T	Stabilization Area T Building "A" 2nd & 3rd Floor Asbestos Abatement Work - Address other Parts of Building	AOC-SA-T-SS-01, AOC-SA-T-SS-03, AOC-SA-T-SS-04	0-0.5'(3)	None	3	Asbestos and Total Lead	*Total Lead* > R DEC 0-0.5'	--	--	--	--	In conjunction with AOC-11, delineate area with 2-3 supplemental soil borings; remediate RSR exceedance soil and/or place ELUR on area in conjunction with redevelopment
SA-U	Stabilization Area U 1,000-gal. heating oil UST Cleaned (AOC-2)	Addressed as AOC-2						--	--	--	--	See AOC-2 Recommendations; close out AOC
SA-V	Stabilization Area V UST Grave found (No UST) (AOC-5)	See AOC-5						--	--	--	--	See AOC-5 Recommendations; close out AOC
SA-W	Stabilization Area W Empty Concrete Vault found (AOC-5)	See AOC-5						--	--	--	--	See AOC-5 Recommendations

Notes: 1) See Table 5 for a comprehensive summary of RSR exceedances in soil, including pre-2006 data collected previously from other
2) Supplemental investigations provided in the recommendations column are dependent on the final reuse plan and therefore are subject to change. These recommended investigations are provided for planning purposes only.

UST = underground storage tank.
AST = aboveground storage tank.
ft^2 = square feet.
ETPH = extractable total petroleum hydrocarbons
VOCs = volatile organic compounds
PAHs = poly-cyclic aromatic hydrocarbons
metals = CT 15 metals
PCBs = polychlorinated biphenyls.
N/A = not applicable.

COCs - Constituents of Concern

Appendix E

Appendix E

APPENDIX E: PREVIOUS INVESTIGATIONS – DOCUMENTS

INTERNATIONAL SILVER CO., FACTORY H
BROWNFIELDS TARGETED SITE ASSESSMENT
FINAL REPORT

Prepared For:

U.S. Environmental Protection Agency Region I
Office of Site Remediation and Restoration
One Congress Street, Suite 1100
Boston, MA 02114-2023

Prepared by:

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Region I START
Reviewed and Approved:

Daniel Keefe
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9/8/99
Date

Jocelyn Boesch
Technical Reviewer

9/8/99
Date

Gretchen M. Franzheim for
Mark J. McDuffee
START Team Leader

9/8/99
Date

Work Order No. 20098-041-001-7107-80

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1.0 INTRODUCTION

The Roy F. Weston, Inc. (WESTON®) Superfund Technical Assessment and Response Team (START) has completed a Brownfields Targeted Site Assessment (BTSA) at the International Silver Co., Factory H (INSILCO) property in Meriden, Connecticut on behalf of the U.S. Environmental Protection Agency Region I (EPA Region I), Office of Site Remediation and Restoration through Technical Direction Document (TDD) number 99-05-0230. The BTSA Report presents the results of site assessment activities performed by START at the INSILCO property. Any use of this document or the information contained herein by persons or entities other than EPA Region I shall be at the sole risk and liability of said person or entity (see Appendix A - Limitations) Project activities were detailed in the Quality Assurance Project Plan/Field Task Work Plan (QAPP/FTWP) for the INSILCO site, dated 18 August 1998, as prepared by START and verbally approved by EPA Region I.

Background information used in the generation of this report was obtained through a review of files maintained at the City of Meriden Town Hall and the Connecticut Department of Environmental Protection (CT DEP); a site visit conducted on 13 August 1997 by START personnel, accompanied by the EPA Region I Task Monitor, CT DEP personnel, and representatives of the Veterans Memorial Medical Center; and an electronic database search of Federal and State regulatory agency files prepared by Environmental Risk Information & Imaging Services (ERIIS). The ERIIS database report is included as Appendix B.

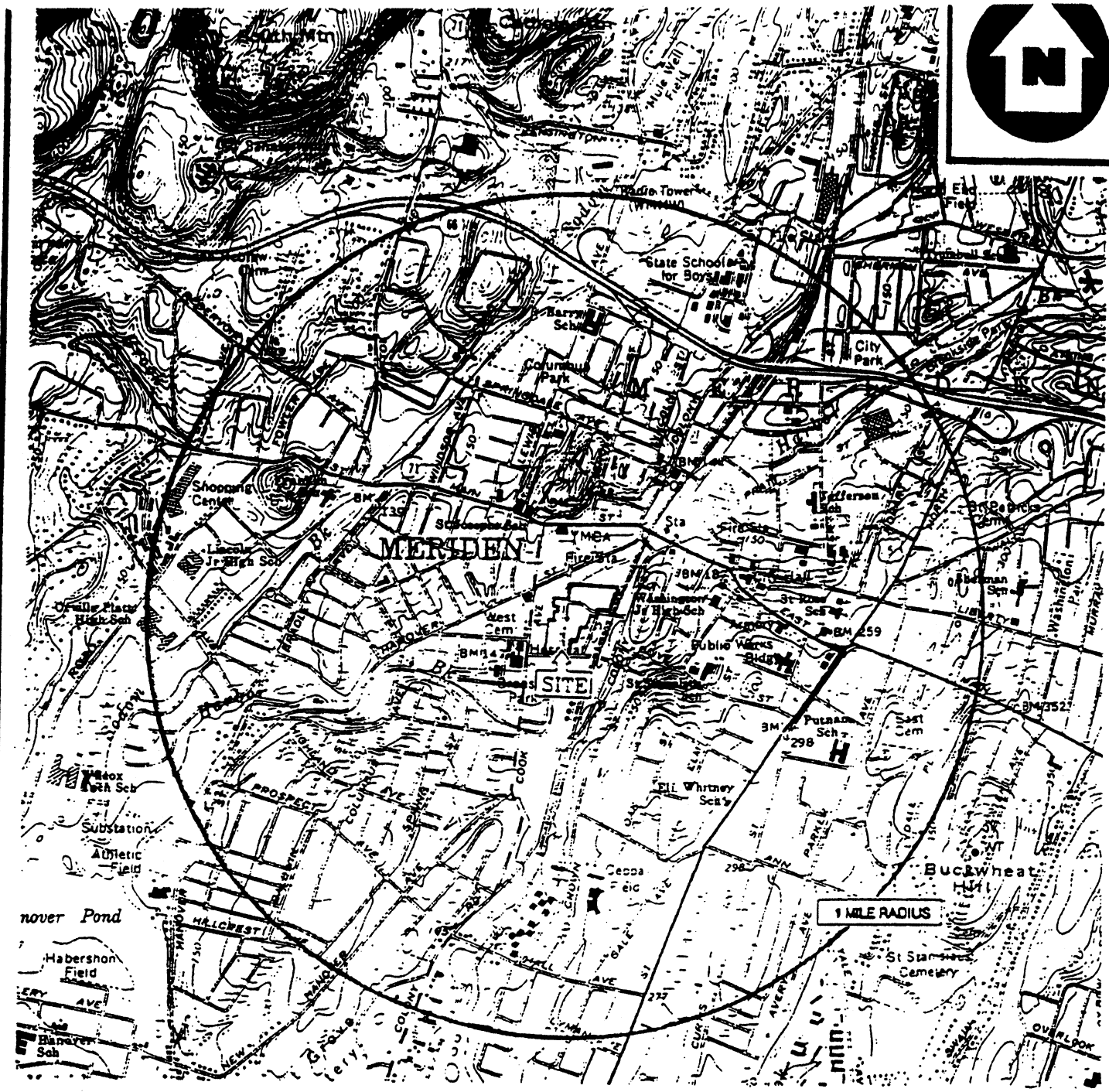
Additional information was collected during the on-site field investigation conducted from 24 August to 1 September 1998 and 23 to 24 September 1998. As part of the investigation, soil gas samples were collected by START personnel and analyzed on site with field screening equipment; and soil, sediment, surface water, wipe, and groundwater samples were collected and analyzed off site at private laboratories. Results of these analyses and conclusions are presented in this BTSA Report. The supporting documentation, including chain-of-custody forms, analytical data reports, and boring logs, are included as appendices.

2.0 SITE DESCRIPTION

2.1 Background

The INSILCO property is located on Cooper Street in Meriden, New Haven County, Connecticut and occupies an estimated 7.2 acres. The geographic coordinates as measured from the center of the property are 41° 32′ 2.9″ north latitude and 72° 48′ 25.3″ west longitude (Figure 1). The property is bisected by Harbor Brook which flows north to south through the property (Figure 2). Historically, the site was used for a variety of industrial and manufacturing purposes. Manufacturing operations ceased in approximately 1974, at which time the property was vacated. The property has remained vacant since 1974, and is currently abandoned.

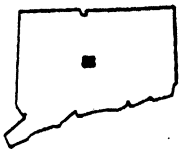
The INSILCO property is located in a mixed residential and commercially zoned area of downtown Meriden. The property is bordered by the Harbor Towers and Hanover Towers apartments to the north; railroad tracks, Cherry Street, and residences to the east; Cooper Street to the south; and the Veterans Memorial Medical Center (VMMC) and residences to the west.



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' x 7.5' U.S.G.S. QUADRANGLE(S):
SOUTHINGTON, CT 1968, PHOTOREVISED 1984
MERIDEN, CT 1968, PHOTOREVISED 1984

1 1/2 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000 FEET



QUADRANGLE LOCATION

LOCATION MAP

INTERNATIONAL SILVER CO.

FACTORY H

COOPER STREET

MERIDEN, CONNECTICUT

WESTON®

MANAGERS DESIGNERS/CONSULTANTS

REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
97-05-0026	J. CHOW	7/10/97

FILE NAME: P:\BSA\97050026\FIGURES\INSILCO1.DWG

FIGURE 1

Four buildings were originally located on the property; however, one of the buildings was destroyed by a fire in 1980, and was subsequently demolished (Figure 2). The three existing buildings consist of Building A, a four-story brick building constructed in two stages circa 1866 and 1947, with a building footprint of approximately 76,000 square feet (ft^2); Building B, a two-story transformer/electrical house constructed in the 1940s with a building footprint of 900 ft^2; and Building C, a two-story power plant, boiler house, and smokestack constructed in the 1940s with a building footprint of 3,600 ft^2. The former fourth building, Building D, was a series of three buildings constructed in circa 1854, and contained a 22,000 ft^2 machine shop facility, a 6,000 ft^2 foundry facility, and a 1,700 ft^2 pattern shop. Use of the property prior to circa 1854 is unknown.

Other structures currently located on the INSILCO property are a footbridge crossing Harbor Brook and an inactive water tower. A series of 19 cyclone-shaped dust filters are located along the eastern perimeter of Building A. The dust filters are believed to have been used to collect polishing and buffing dust created as part of the former silverware manufacturing processes. Approximately one-quarter of the property is covered by asphalt pavement or by building footprints. No abutting wetlands are known to be located along the stretch of Harbor Brook that flows through the property. The property is connected to municipal water and sewer service.

Based on a Sanborn Fire Insurance (Sanborn) map from 1891, the subject property formerly consisted of two separate parcels separated by Harbor Brook (Figure 2). C. Rogers and Brothers Silverware, located on the parcel west of Harbor Brook, was engaged in the manufacturing of plated flatware, cutlery, and ornamental casket trimmings and hardware. Sanborn maps indicate that operations conducted on the property included casting, plating, machining, trimming, polishing, buffing, packaging, storage, and shipping. Detailed information regarding the types of materials used and wastes generated by C. Rogers and Brothers Silverware was not available. In 1903, C. Rogers and Brothers Silverware became U.S. Silver, which was later acquired by INSILCO. The INSILCO acquisition date of U.S. Silver is unknown.

Based on available Sanborn maps, Parker Bros. Gun Works was located on the parcel east of Harbor Brook and was engaged in the production of guns from 1891 until sometime in the 1930s. Sanborn maps indicate that operations conducted on the property included forging, casting, machining, and storage. Detailed information regarding the types of materials used and wastes generated by Parker Bros. Gun Works was not available. In the 1930s, INSILCO purchased the Parker Bros. Gun Works property and facility. INSILCO combined the two parcels and operated the facility, known as Factory H, for the production of flatware and cutlery until operations were relocated in approximately 1974. The property and the on-site buildings have been vacant since that time. Pedestrian access to the property is available through unfenced portions of the property along the northeast and southern property boundaries.

An estimated 12 underground storage tanks (USTs) are reportedly located on the property; however, detailed information regarding the size, contents, and location of many of the USTs was not available. Two 20,000-gallon fuel oil USTs are located east of Building C. One gasoline UST of unknown size is located south of Building C. One 1,000-gallon kerosene UST is located southeast of Building A. One 10,000-gallon wastewater UST is located northeast of Building B. Seven other USTs reportedly may be located along the east side of Building A; however, the sizes and locations of the USTs could not be confirmed (Figure 2).

INSILCO is known to have conducted plating operations and is reported to have generated and discharged alkali soaps; copper, chromium, and zinc solutions; and sulfuric acid to the sanitary sewer system. They also generated and discharged oils, pumice, and wastewaters containing nickel, silver, chromium, copper, zinc, and acid and alkali solutions to Harbor Brook. Halogenated and non-halogenated solvents are also reported to have potentially been used and generated during INSILCO manufacturing operations. More detailed information of industrial processes conducted by INSILCO on the subject property is unavailable.

In 1977, Carabetta Enterprises purchased a 10-acre piece of land comprised of the current 7.2-acre INSILCO property and the current 2.8-acre VMMC parcel (located northwest and adjacent to the current INSILCO property). Carabetta Enterprises renovated and constructed the Meriden Medical Center on the 2.8-acre VMMC parcel.

In 1981, ownership of the 7.2-acre portion of the property was transferred back to INSILCO through quit claim, and subsequently INSILCO donated the property to Meriden-Wallingford Hospital. From 1981 to 1985, Meriden-Wallingford Hospital may have used a small portion of Building A for warehouse space.

In 1985, as part of a redevelopment effort, BL&A Associates Limited Partnership (BL&A) purchased the 7.2-acre INSILCO property from Meriden-Wallingford Hospital (which later became VMMC). The redevelopment did not proceed, in part due to the potential cost of remediation, and the property was abandoned. BL&A remains the legal owner of record and VMMC holds the mortgage for the INSILCO property.

2.2 Regulatory Status

A Pollution Abatement Order was issued by CT DEP to BL&A on 15 May 1997 in an attempt to gain access to the property. No orders for cleanup were issued in the Pollution Abatement Order. To date, no known orders or activities to mitigate on-site pollution have been conducted.

The INSILCO Factory H property is not listed on any of the following State or Federal environmental databases: the National Priorities List (NPL); the Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS); the Resource Conservation and Recovery Act Information System (RCRIS); and the State of Connecticut Inventory of Hazardous Waste Sites.

According to CT DEP, the property is not classified as an "Establishment" under the Connecticut Transfer Act as it was not occupied after 1980. Therefore, the property would not be subject to Transfer Act disclosure requirements upon sale.

2.3 Previous Environmental Investigations

The following environmental investigations are known to have been performed on the subject property and were available for review:

- HRP Associates, Inc., *Site Assessment Report,* 21 June 1988.

- Advanced Environmental Interface, Inc., *Assessment of Site Environmental Conditions Report,* 24 January 1990.

- ICF Kaiser Engineers, Inc., *Underground Storage Tank Sampling Report,* 17 December 1990.

- Roy F. Weston, Inc., *Removal Program Preliminary Assessment/Site Investigation Report,* 22 December 1997.

HRP Associates, Inc. (HRP) completed a Site Assessment (SA) Report on 21 June 1988 for BL&A. As part of the SA, HRP identified potential source areas and conducted environmental sampling. Potential source areas identified by HRP included 11 USTs; six aboveground storage tanks (ASTs); suspect asbestos-containing materials (ACMs); visibly stained soils; uncharacterized debris piles; dust piles generated by the facility's dust collectors; miscellaneous sumps, floor drains, catchbasins, and a dry well; suspect lead paint; and stained interior building surfaces. As part of the SA, HRP conducted soil, groundwater, and surface water sampling.

HRP advanced 13 soil borings on the INSILCO property; five of the soil borings were completed as monitoring wells. During the drilling process, HRP field-screened soil boring samples using a photoionization detector (PID). HRP also collected composite soil samples from beneath the pavement under dust collectors along the east side of Building A and a composite sample from the dust piles.

Eight soil samples from test borings, two composite soil samples from beneath the pavement, and one composite sample from the dust piles were submitted for laboratory analyses for halogenated volatile organic compounds (VOCs) by EPA Method 8010; aromatic VOCs by EPA Method 8020; Extraction Procedure (EP) Toxicity metals (arsenic, barium, cadmium, chromium, lead, mercury, silver, and selenium) plus copper and nickel, and total cyanide. The method of analysis for EP Toxicity metals (plus copper and nickel), and total cyanide were not provided in the HRP SA Report.

HRP also collected groundwater samples from the five monitoring wells and three surface water samples from Harbor Brook (one each upstream, on-site, and downstream of the property). The groundwater and surface water samples were submitted for the same laboratory analyses as the soil samples; however, the aqueous samples were not analyzed for cyanide.

Tables 1 and 2 summarize the analytical results of the HRP soil and groundwater samples and list the CT DEP Remediation Standard Regulation (RSR) *(Regulation of Connecticut State Agencies, Sections 22a-133k-1 through 22a-133k-3)* values for comparison purposes.

Analytical results indicated soil contamination in the northeast corner of the property with maximum concentrations of trichloroethylene (TCE) at 0.873 parts per million (ppm), tetrachloroethylene (PCE) at 0.924 ppm, xylene at 1.253 ppm, toluene at 0.392 ppm, chromium at 0.23 ppm, and copper at 0.01 ppm.

T. .e 1

International Silver Co., Factory H
HRP Soil Sample Results - Samples Collected 1-3 June 1988

Sample ID	Sample Depth (feet)	Contaminant and Concentration (ppm)		RES-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
TB7 S2	5-7	Trichloroethylene	0.873	56	520	1.0
		Tetrachloroethylene	0.639	12	110	1.0
TB7 S6	13-15	Tetrachloroethylene	0.102	12	110	1.0
TB8 S2	4-6	Trichloroethylene	0.060	56	520	1.0
		Tetrachloroethylene	0.313	12	110	1.0
		Chromium (total)	0.23	NA	NA	0.5
TB8 S6	12-14	Tetrachloroethylene	0.064	12	110	1.0
		Toluene	0.187	500	1,000	67
		o-Xylene	0.108	500	1,000	19.5
		Copper	0.01	NA	NA	13
MW1 S2	5-7	Trichloroethylene	0.050	56	520	1.0
		Tetrachloroethylene	0.029	12	110	1.0
MW1 S3	10-12	Trichloroethylene	0.462	56	520	1.0
		Tetrachloroethylene	0.924	12	110	1.0
		Toluene	0.392	500	1,000	67
		p-Xylene	0.342	500	1,000	19.5
		o-Xylene	0.911	500	1,000	19.5
MW2 S2	5-7	No substances detected				
MW5 S2	5-7	No substances detected				

RES-DEC = CT DEP Residential Direct Exposure Criteria.
I/C-DEC = CT DEP Industrial/Commercial Direct Exposure Criteria.
PMC-GB = CT DEP Pollutant Mobility Criteria for GB classified areas.
NA = Not applicable. Comparison with CT DEP DEC standards requires total metals analyses. Leachable metals analyses are not comparable.
ppm = Parts per million.

Soil samples were analyzed for halogenated volatile organic compounds (VOCs) (EPA Method 8010), aromatic VOCs (EPA Method 8020), and leachable Extraction Procedure (EP) Toxicity metals (arsenic, barium, cadmium, chromium, lead, mercury, silver and selenium) plus copper and nickel, and total cyanide. All substances detected are listed in the above table.

Table 2

International Silver Co., Factory H
HRP Groundwater Sample Results - Samples Collected 6 June 1988

Well ID	Contaminant and Concentration (ppb)		SWPC	RES-GWVC	I/C-GWVC
MW-1	Trichloroethylene	56.0	2,340	219	540
	Tetrachloroethylene	33.0	88	1,500	3,820
MW-2	Trichloroethylene	5.0	2,340	219	540
MW-3	Trichloroethylene	69.0	2,340	219	540
	Tetrachloroethylene	8.0	88	1,500	3,820
MW-4	Methylene chloride	2.0	48,000	50,000	50,000
	Trichloroethylene	49.0	2,340	219	540
	Tetrachloroethylene	3.0	88	1,500	3,820
MW-5	Trans-1,2-dichloroethylene	20.0	NA	NA	NA
	Trichloroethylene	12.0	2,340	219	540

SWPC = CT DEP Surface Water Protection Criteria.
RES-GWVC = CT DEP Residential Groundwater Volatilization Criteria.
I/C-GWVC = CT DEP Industrial/Commercial Groundwater Volatilization Criteria.
NA = Not applicable. No CT DEP RSR standards promulgated.
ppb = Parts per billion.

Groundwater samples were analyzed for halogenated volatile organic compounds (VOCs) (EPA Method 8010), aromatic VOCs (EPA Method 8020), metals (arsenic, barium, cadmium, total chromium, lead, mercury, selenium, silver, copper, nickel), and total cyanide. It is unknown if samples were filtered for dissolved metals analyses or were submitted for total metals.

All compounds detected are listed in the above table.

Analytical results for the dust pile composite sample indicated the presence of silver (0.06 ppm), copper (65 ppm), and nickel (46 ppm). Copper (15 ppm) and nickel (4.2 ppm) were detected in the soil samples collected from beneath the pavement under the dust collectors.

Laboratory analysis of groundwater samples collected from the monitoring wells revealed the following contaminants with the following maximum concentrations: TCE at 69 parts per billion (ppb), PCE at 33 ppb, trans-1,2-dichloroethylene at 20 ppb, and methylene chloride at 2 ppb. Moreover, contaminants (i.e., VOCs) were in all of the monitoring wells sampled. Sampling and analysis of surface water from Harbor Brook indicated the presence of TCE at 1 ppb, 2 ppb, and 10 ppb at locations upstream, on-site, and downstream of the property, respectively.

HRP concluded that remediation and additional assessment activities were needed to address on-site contaminant source areas. No subsequent remedial activities are known to have been conducted.

Advanced Environmental Interface, Inc. (AEI) completed an Assessment of Site Environmental Conditions Report on 24 January 1990. AEI summarized the HRP SA findings and conducted additional environmental sampling. AEI sampled suspect ACMs, the contents from the 10,000-gallon wastewater UST, the contents of four 55-gallon drums, and the dust piles. AEI sampling of suspect ACMs indicated the presence of friable asbestos in pipe insulation and nonfriable asbestos in floor tiles, roof shingles, and exterior AST insulation. Laboratory analysis of the 10,000-gallon wastewater UST indicated that the contents were slightly alkaline (pH = 9.3) and contained silver and lead. The AEI report did not document the exact concentration of silver and lead found in the wastewater sample.

AEI conducted an inventory of drums and performed laboratory analysis on the contents of four 55-gallon drums. A drum of sludge was found to contain ammonia, iron, and zinc; a drum of waste oil was found to contain ammonia, chromium, silver, copper, iron, nickel, zinc, lead, and cadmium; a drum of lubricating grease was found to contain 100% solids and no restricted solvents; and a drum of metal grinding dust was found to contain copper and nickel. Laboratory analysis of a dust pile sample indicated the presence of silver, copper, nickel, and zinc. The AEI report did not document the exact concentration of contaminants found in the drum and dust pile samples. AEI estimated the volume of the dust piles to be approximately 20 55-gallon drums.

AEI also conducted a soil gas survey on the northeast corner of the subject property as part of their assessment. The soil gas survey was conducted to further investigate the area of soil contamination documented in the 1988 HRP SA Report. Seven soil gas sampling locations were analyzed in the field using a PID. No laboratory quantitative analysis of soil gas samples was conducted. Results of the AEI soil gas survey indicated elevated levels of organic vapors at concentrations up to 560 ppm (isobutylene equivalents) in the vicinity of contaminated soil areas identified during the HRP SA. AEI concluded that potential on-site source areas might require response actions. No subsequent remedial activities are known to have been conducted.

In November 1990, ICF Kaiser Engineers, Inc. (ICF) installed two additional monitoring wells (MW-6 and MW-7) on the INSILCO property. Laboratory analysis of groundwater samples

collected from MW-6 and MW-7 indicated the presence of contaminants with maximum concentrations of TCE at 17 ppb and trichlorofluoromethane at 140 ppb.

ICF completed an Underground Storage Tank Sampling Report on 17 December 1990. ICF sampled four on-site USTs (the two 20,000-gallon USTs located east of Building C, the UST located south of Building C, and the UST near the southeast corner of Building A). Laboratory analysis of the sampled USTs indicated that they contained petroleum products with maximum contaminant concentrations of xylenes at 480 ppm, toluene at 86 ppm, ethylbenzene at 73 ppm, copper at 0.01 ppm, chromium at 2.6 ppm, nickel at 2.4 ppm, lead at 46 ppm, and zinc at 3.8 ppm. The contents of the two 20,000-gallon USTs located east of Building C, the UST located south of Building C, and the UST near the southeast corner of Building A were identified by the analytical laboratory as being similar to diesel fuel, gasoline, and kerosene, respectively. ICF noted that the contents of the USTs would be acceptable for processing at an oil recovery facility. The contents from the four sampled USTs were reportedly pumped out and disposed of off site. It is unknown if the contents of any other USTs were removed, or if any USTs were decommissioned in accordance with CT DEP requirements.

In February 1998, EPA Region I and START completed a Removal Program Preliminary Assessment/Site Investigation (PA/SI) to determine if hazards to public health or the environment were present at the INSILCO property. As part of the PA/SI, START collected the following samples: five dust samples from the dust collectors between Building A and Harbor Brook; one sample from ash inside the base of the smokestack; seven samples from dirt/debris piles east of Harbor Brook and south of Building C; two surface soil samples from west/southwest of Building C; two surface soil samples from the northeast corner of the property; two drum samples from the southwest corner of Building A; one liquid sample from the UST south of Building C; one liquid sample from the UST southeast of Building A; three solid samples from the interior of Building A; and three solid samples from the interior of Building C.

Analytical results of the dust samples indicated the presence the following substances (at maximum concentrations): copper at 448,000 ppm, iron at 232,000 ppm, zinc at 158,000 ppm, nickel at 63,600 ppm, chromium at 2,610 ppm, manganese at 2,030 ppm, silver at 558 ppm, lead at 498 ppm, barium at 171 ppm, cobalt at 83.1 ppm, cadmium at 53.2 ppm, cyanide at 41 ppm, and polychlorinated biphenyls (PCBs) (Aroclor 1260) at 19 ppm. Soil sample analyses indicated the presence of cyanide at a maximum concentration of 2.7 ppm and various metals at concentrations up to 1,400 ppm (copper). Drum sample analyses indicated the presence of bis(2-ethylhexyl)phthalate at a maximum concentration of 80 ppb and various metals at concentrations up to 3.02 ppm (manganese). Analyses of samples from the UST south of Building C and the UST southeast of Building A indicated a match for gasoline and kerosene, respectively. Analyses of the solid samples from Building A and Building C indicated the presence of up to 50% asbestos, and paint containing up to 2,970 ppm lead.

Based on the results of the PA/SI, EPA Region I has determined that a Removal Action pursuant to the National Contingency Plan (40 CFR 300.15) is necessary. The time frame for initiating the Removal Action and the detailed scope of work to be completed have not been determined. However, based on information provided by EPA Region I, it is anticipated that activities will include the removal of on-site drums, dust piles, and the mitigation of on-site ACM source areas.

2.4 Potential Source Areas

Table 3 is a summary of potential source areas at the INSILCO property that were identified based on available file information. A description and the location of each potential source area is also included. The locations of potential source areas are illustrated on Figure 2.

Table 3

International Silver Co., Factory H
Potential Source Areas of Contamination

No.	Potential Source Area	Location	Description
1	2 20,000-gallon USTs	East side of Building C	Reported to be steel construction and have contained diesel fuel. Unknown installation date.
2	1 1,000-gallon UST	Southeast side of Building A	Reported to be steel construction and have contained kerosene. Unknown installation date.
3	1 10,000-gallon UST	Along Harbor Brook north of Building B	Reported to be steel construction and have contained metal finishing rinse and wastewater. Installed in 1970.
4	1 UST of unknown size	South side of Building C	Contained gasoline; unknown construction and installation date.
5	2 USTs of unknown size	Curbed areas along southeast side of Building A	Unknown construction, use, and installation date.
6	5 USTs of unknown size	Fill pipes along northeast side of Building A	Unknown construction, use, and installation date.
7	2 200-gallon ASTs	Ground floor of Building C	Reported to be steel construction. Unknown use and installation date.
8	1 1,500-gallon AST	Ground floor Building C	Reported to be concrete construction. Unknown use and installation date.
9	2 300-gallon ASTs	North and west side of ground floor of Building A	Reported to be concrete construction. Unknown use and installation date.
10	1 150,000-gallon AST (Water tower)	South of Building C	Reported to be steel construction. Unknown installation date.
11	11 55-gallon drums	Throughout property	HRP observed four empty drums, and seven partially-filled drums containing unidentified wastes.
12	Discharge pipes	East of Building A along Harbor Brook	Pipes formerly discharged wastewater from Building A to Harbor Brook.
13	Dry well	Southeast of Building B	Unknown materials may have disposed of via the dry well.
14	Dust piles	East of Building A under dust collectors	Piles of dust generated from facility's former silver polishing dust collection system.

Table 3

International Silver Co., Factory H
Potential Source Areas of Contamination (concluded)

No.	Potential Source Area	Location	Description
15	Debris piles	East of Harbor Brook and southwest corner of property	Several piles of earthen material, scrap, and debris.
16	Debris pile	Southwest side of Building A	Pile of medical glass slides near the building dock of Building A.
17	Contaminated soil	Northeast corner of property in vicinity of former Building D	Approximately 5,600 ft^2 of chlorinated solvent contaminated soil (to a depth of at least 15 ft below ground surface).
18	Contaminated soil	Area adjacent to Building C	15 ft^2 of fuel oil stained soil.
19	Contaminated soil	Under dust piles east of Building A.	1,600 ft^2 of green stained soils contaminated with metals from overlying dust piles.
20	Contaminated wood floor	South end of Building A	30 ft^2 of oil stained wooden floor.
21	Stained concrete	North end of Building A	40 ft^2 of stained concrete floor.
22	Debris pile	Adjacent to smoke stack south of Building C	10 ft^2 of deteriorated insulation material, possibly asbestos-containing material.
23	Stained soil	East of Building A	10 ft^2 of paint stains.
24	Possible UST	West side of former Building D	Possible UST identified by ICF Kaiser Engineers
25*	Contaminated groundwater	Throughout property	Groundwater contaminated with chlorinated solvents have been documented.
26*	Contaminated surface water and sediments	Harbor Brook	Process wastewater is known to have been discharged to Harbor Brook
27*	Asbestos containing materials	Throughout building interiors	Asbestos-containing pipe insulation, floor tiles and roof shingles have been identified in on-site buildings.
28*	Lead paint	Throughout building interiors	Peeling paint noted in on-site buildings.
29*	Fluorescent light ballasts	Throughout building interiors	Fluorescent light ballasts may contain hazardous metals and PCBs.

UST = Underground storage tank.
AST = Aboveground storage tank.
ft^2 = Square feet.
PCBs = Polychlorinated biphenyls.

*These source areas are not depicted in Figure 2 due to lack of specific information, or the ubiquitous nature of the contamination (i.e. contaminated groundwater).

3.0 BROWNFIELDS SITE ASSESSMENT SAMPLING ACTIVITIES

From 24 August to 1 September 1998 and 23 to 24 September 1998, START personnel conducted environmental sampling at the INSILCO property. Activities included conducting a soil gas survey; installing and developing four shallow and three deep monitoring wells; sampling surface and subsurface soils; sampling and surveying the newly installed and existing monitoring wells; sampling sediment and surface water within Harbor Brook; and collecting wipe samples from a retaining wall along Harbor Brook. A photo documentation log detailing site conditions is presented in Appendix C

The field investigation was performed in accordance with the procedures set forth in the Generic Brownfields Site Assessment Quality Assurance Project Plan (QAPP), dated 23 July 1997, and the site-specific QAPP/FTWP, dated 18 August 1998, as verbally approved by EPA. Sample locations and analytical parameters were designed to focus on known or potential source areas in an attempt to characterize contaminant distribution with respect to the CT DEP RSR. Figure 3 depicts the START sampling locations.

3.1 Soil Gas Survey

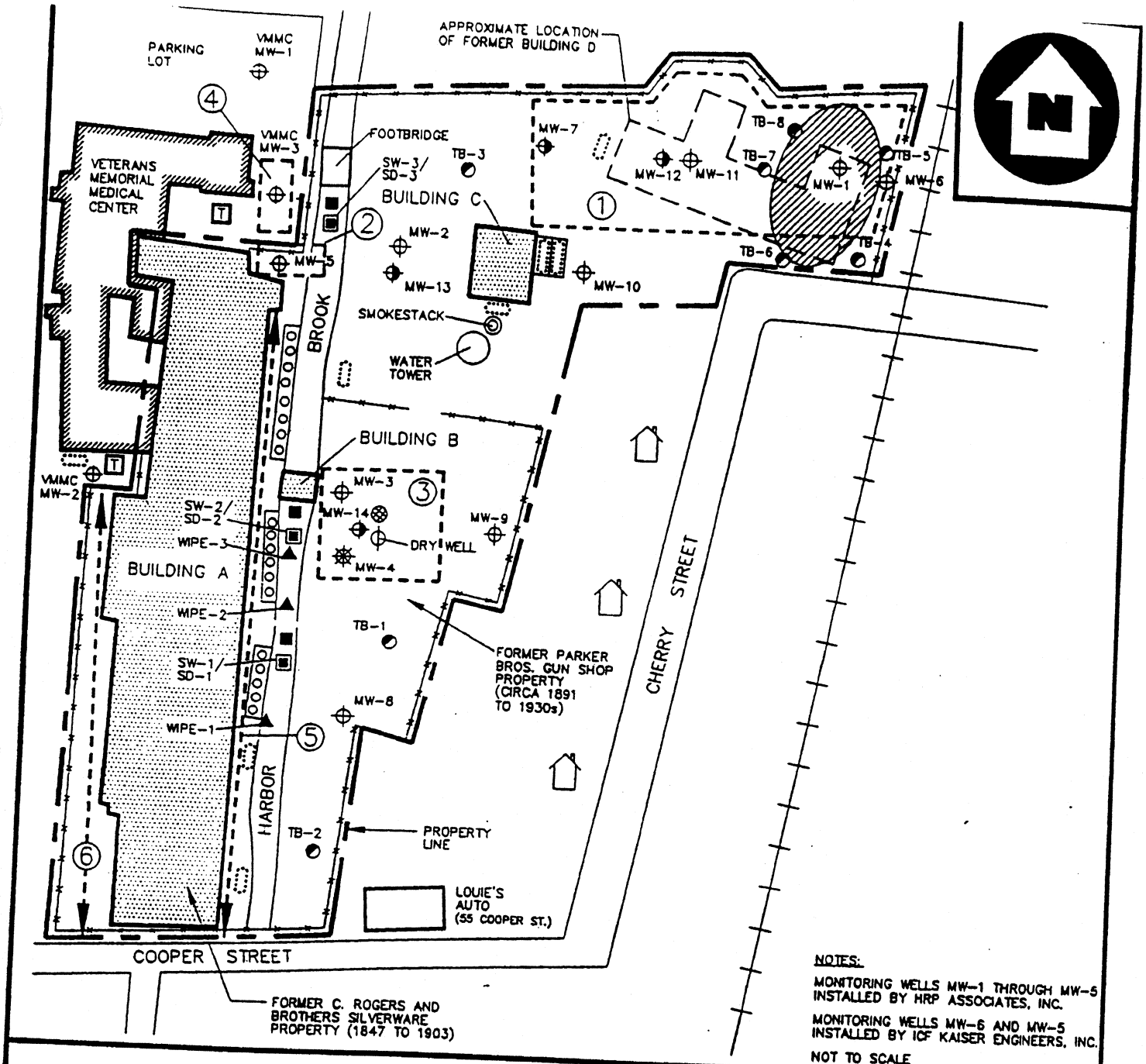
From 24 to 27 August 1998, START performed a soil gas survey in five Areas of Concern (AOCs) on the property (AOC Nos. 1, 2, 3, 5, and 6 as depicted on Figure 3). AOC No. 4 was not evaluated as it was determined to be located off site. In AOC Nos. 1, 2, and 3, the soil gas survey was conducted using a Geoprobe™ system to collect samples along a 25-foot grid (as depicted on Figure 4). Soil gas samples were collected at the nodes of the grid from a depth of approximately 3 feet, and submitted for VOC field screening analysis using a portable gas chromatograph (GC) equipped with a PID (GC-PID).

Access to the two remaining AOCs (AOC-5 and AOC-6) was not possible with the Geoprobe system. As a result, soil gas sampling was conducted manually to a depth of approximately 3 feet at 50-foot grid intervals in these two AOCs (as depicted on Figure 5).

Non-dedicated, decontaminated soil gas probes were used. Soil gas sampling equipment were decontaminated between locations. Soil gas samples were collected into 1 liter Tedlar™ bags using an air sampling pump (i.e., Gilian™ pump). The pumping rate was recorded at each location as an indication of the permeability of the subsurface material.

All soil gas samples were analyzed on site using a GC-PID within 24 hours of collection. The GC-PID analyzed for the following compounds: 1,1-dichloroethylene, trans-1,2-dichloroethylene, benzene, TCE, toluene, PCE, chlorobenzene, ethylbenzene, and xylenes. No samples for off-site laboratory analysis were collected.

Soil gas sampling results are presented in Table 4. Sample locations are denoted as AOC No. plus grid coordinates (e.g., 1+B50). If a substance was detected in a sample, its concentration was listed for that sample. If a substance was not detected in a sample, it was not listed. The results presented in Table 4 are compared against CT DEP RSR standards. Analytical results are presented in Appendix D.



SAMPLE LOCATION PLAN

INTERNATIONAL SILVER CO.
FACTORY H
COOPER STREET
MERIDEN, CONNECTICUT

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

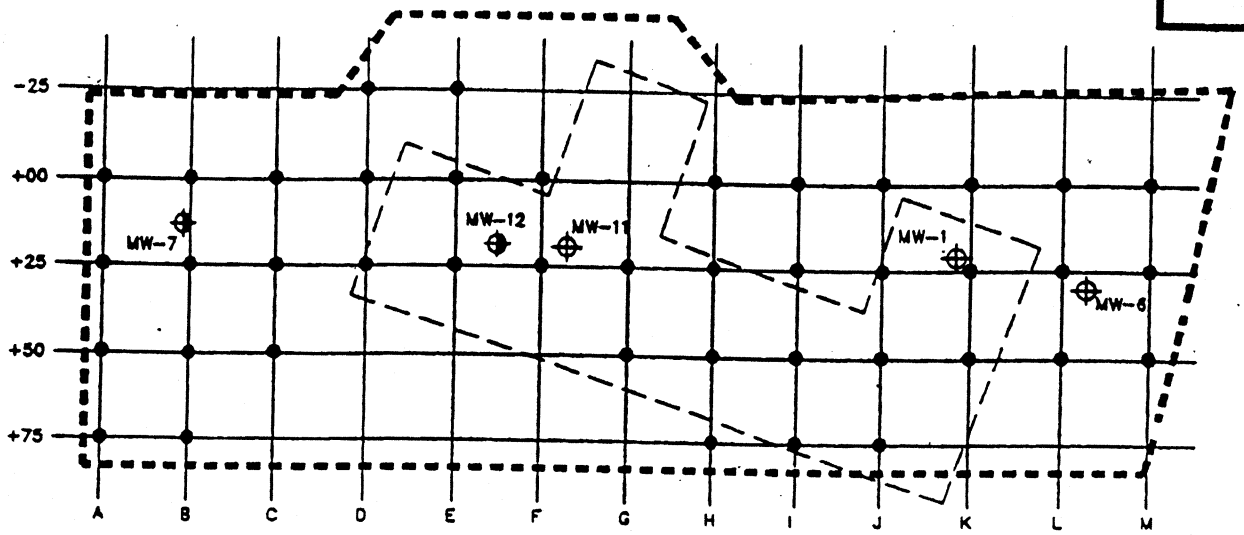
TDD #	DRAWN BY:	DATE
98-05-0098	W. SHAW	7/10/97

FILE NAME: P:\BSA\97050026\FIGURES\INSILC03

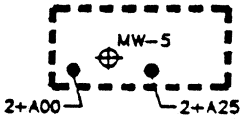
FIGURE 3

AREA OF CONCERN NO. 1

NOTE: SAMPLE POINTS DENOTED AS (1+C50), FOR EXAMPLE.

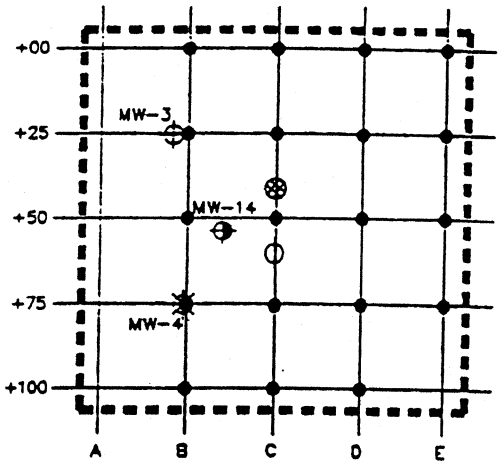


AREA OF CONCERN NO. 2



AREA OF CONCERN NO. 3

NOTE: SAMPLE POINTS DENOTED AS (3+C50), FOR EXAMPLE.



NOTES:

GRID POINTS WITHOUT A SOIL GAS SAMPLING POINT SHOWN WERE NOT COLLECTED.

NOT TO SCALE

LEGEND

- SHALLOW OVERBURDEN MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- DESTROYED OVERBURDEN MONITORING WELL
- DRY WELL
- CATCHBASIN
- SOIL GAS SAMPLE LOCATION
- SOIL GAS SURVEY AREAS

SOIL GAS SAMPLE LOCATION PLAN

AREA OF CONCERN NOS. 1 – 3

INTERNATIONAL SILVER CO.
FACTORY H
COOPER STREET
MERIDEN, CONNECTICUT

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
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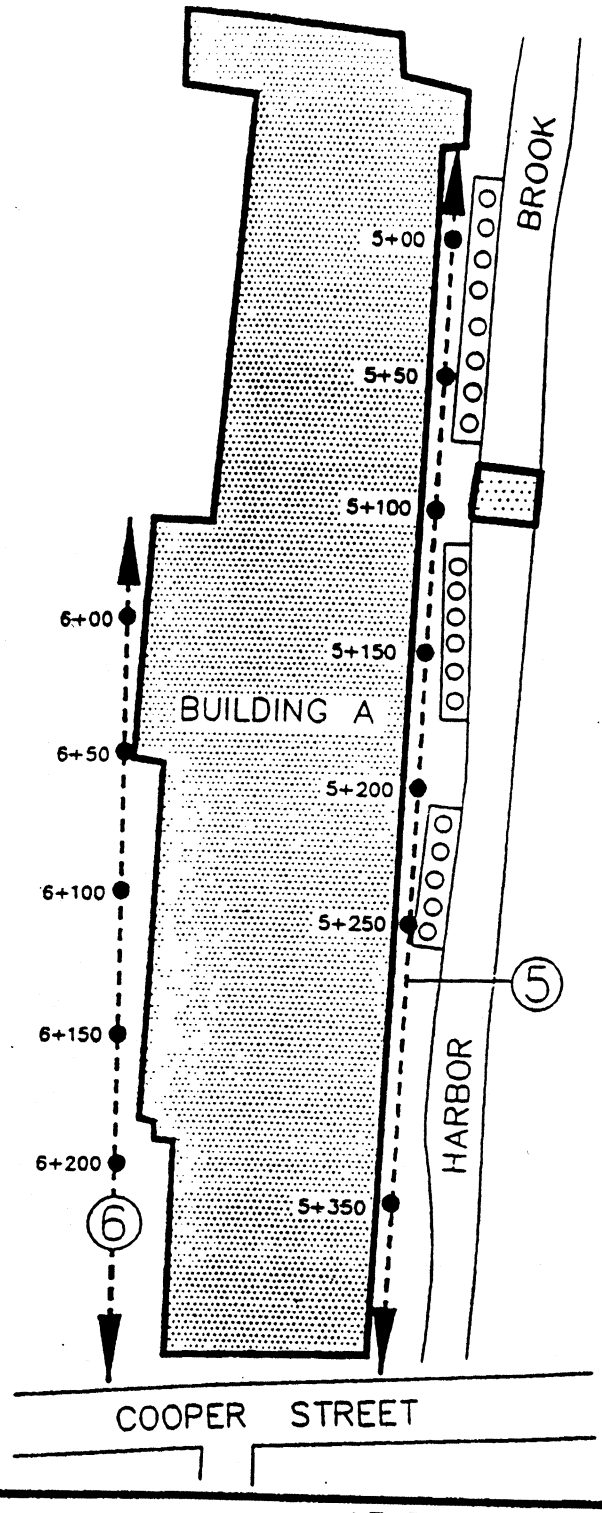
98-05-0098	W. SHAW	7/10/97

FILE NAME: P:\BSA\97050026\FIGURES\INSIL_A

FIGURE 4



NOT TO SCALE

LEGEND

DUST COLLECTOR AREA (DUST PILES)

SOIL GAS SURVEY AREAS

SOIL GAS SAMPLE LOCATION

SOIL GAS SAMPLE LOCATION PLAN
AREA OF CONCERN NOS. 5 AND 6
INTERNATIONAL SILVER CO.
FACTORY H
COOPER STREET
MERIDEN, CONNECTICUT

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98-05-0098	W. SHAW	7/10/97

FILE NAME: P:\BSA\97050026\FIGURES\INSIL_B

FIGURE 5

Table 4

International Silver Co., Factory H
START Soil Gas Sample Results
Samples Collected 24 to 27 August 1998

Sample Location	Date/Time	Substance	Concentration (ppb)	R-SV (ppb)	I/C-SV (ppb)	Pump Rate (L/min)
3+B25	8/24/98 1530 hrs	Benzene Toluene m- & p-Xylene o-Xylene	83 820 13 11	1,000 760,000 500,000 500,000	113,000 2,615,000 1,702,000 1,702,000	5.0
3+B50	8/24/98 1545 hrs	Toluene m- & p-Xylene	26 14	760,000 500,000	2,615,000 1,702,000	5.0
3+B75	8/24/98 1600 hrs	Toluene o-Xylene	47 10	760,000 500,000	2,615,000 1,702,000	5.0
3+B100	8/24/98 1555 hrs	Benzene Toluene	65 54	1,000 760,000	113,000 2,615,000	5.0
3+C25	8/24/98 1345 hrs	Toluene m- & p-Xylene o-Xylene	1,500 13 12	760,000 500,000 500,000	2,615,000 1,702,000 1,702,000	2.5
3+C50	8/24/98 1350 hrs	Benzene Toluene	18 130	1,000 760,000	113,000 2,615,000	2.5
3+C75	8/24/98 1300 hrs	Benzene	23	1,000	113,000	2.0
3+C100	8/24/98 1232 hrs	Benzene	83	1,000	113,000	5.0
3+D00	8/24/98 1408 hrs	m- & p-Xylene o-Xylene	46 14	500,000 500,000	1,702,000 1,702,000	2.0
3+D50	8/24/98 1455 hrs	Toluene m- & p-Xylene	28 12	760,000 500,000	2,615,000 1,702,000	2.5
3+D75	8/24/98 1445 hrs	Toluene m- & p-Xylene o-Xylene	56 77 14	760,000 500,000 500,000	2,615,000 1,702,000 1,702,000	1.5
3+D100	8/24/98 1210 hrs	m- & p-Xylene o-Xylene	15 13	500,000 500,000	1,702,000 1,702,000	5.0
1+A00	8/25/98 1015 hrs	Trichloroethylene	2,500	7,000	16,000	5.0
1+A50	8/25/98 1526 hrs	Trichloroethylene	6,400	7,000	16,000	5.0
1+A75	8/25/98 1533 hrs	Benzene Toluene o-Xylene	240 120 390	1,000 760,000 500,000	113,000 2,615,000 1,702,000	5.0
1+B00	8/25/98 1020 hrs	Trichloroethylene	2,800	7,000	16,000	5.0
1+B25	8/25/98 1546 hrs	Trichloroethylene	9,000	7,000	16,000	5.0

Table 4

International Silver Co., Factory H
START Soil Gas Sample Results
Samples Collected 24 to 27 August 1998 (continued)

Sample Location	Date/Time	Substance	Concentration (ppb)	R-SV (ppb)	I/C-SV (ppb)	Pump Rate (L/min)
1+B50	8/25/98 1543 hrs	Trichloroethylene Tetrachloroethylene	18,000 J 11,000 J	7,000 11,000	16,000 27,000	5.0
1+B75	8/25/98 1536 hrs	Trichloroethylene	7,200	7,000	16,000	5.0
1+C00	8/25/98 0930 hrs	Trichloroethylene Tetrachloroethylene	22,000 11,000	7,000 11,000	16,000 27,000	5.0
1+C25	8/25/98 1616 hrs	Trichloroethylene Tetrachloroethylene	8,100 J 2,500	7,000 11,000	16,000 27,000	5.0
1+C50	8/25/98 1605 hrs	Trichloroethylene	2,200	7,000	16,000	5.0
1+D00	8/25/98 0908 hrs	Trichloroethylene Tetrachloroethylene	15,000 18,000	7,000 11,000	16,000 27,000	5.0
1+E00	8/25/98 0903 hrs	Tetrachloroethylene	4,500	11,000	27,000	5.0
1+E25	8/25/98 1200 hrs	Tetrachloroethylene	2,100	11,000	27,000	5.0
1+F00	8/25/98 0833 hrs	m- & p-Xylene	15	500,000	1,702,000	5.0
1+F25	8/25/98 1250 hrs	Tetrachloroethylene	1,900	11,000	27,000	5.0
1+G25	8/25/98 1235 hrs	Tetrachloroethylene	2,300	11,000	27,000	5.0
1+G50	8/25/98 1451 hrs	Tetrachloroethylene	1,100	11,000	27,000	5.0
1+H50	8/25/98 1413 hrs	Trichloroethylene Tetrachloroethylene	7,000 4,000	7,000 11,000	16,000 27,000	5.0
1+I00	8/25/98 0824 hrs	Trichloroethylene Tetrachloroethylene	28,000 J 20,000	7,000 11,000	16,000 27,000	5.0
1+I25	8/25/98 1318 hrs	Trichloroethylene Tetrachloroethylene	10,000 9,000	7,000 11,000	16,000 27,000	5.0
1+I50	8/25/98 1430 hrs	Trichloroethylene Tetrachloroethylene	4,900 5,400	7,000 11,000	16,000 27,000	5.0
1+J00	8/25/98 0905 hrs	Trichloroethylene Tetrachloroethylene	3,600 J 1,800	7,000 11,000	16,000 27,000	5.0
1+J25	8/25/98 1046 hrs	Trichloroethylene Tetrachloroethylene	34,000 J 7,300 J	7,000 11,000	16,000 27,000	5.0
1+J50	8/25/98 1050 hrs	Trichloroethylene Tetrachloroethylene	8,300 1,800	7,000 11,000	16,000 27,000	5.0
1+K00	8/26/98 1020 hrs	Trichloroethylene	3,600	7,000	16,000	5.0

Table 4

International Silver Co., Factory H
START Soil Gas Sample Results
Samples Collected 24 to 27 August 1998 (concluded)

Sample Location	Date/Time	Substance	Concentration (ppb)	R-SV (ppb)	I/C-SV (ppb)	Pump Rate (L/min)
1+K25	8/26/98 1035 hrs	Trichloroethylene	4,800	7,000	16,000	5.0
1+K50	8/26/98 1045 hrs	Trichloroethylene Tetrachloroethylene	4,700 1,800	7,000 11,000	16,000 27,000	5.0
1+D-25	8/27/98 0755 hrs	Trichloroethylene Tetrachloroethylene	***17,000*** 6,700	7,000 11,000	16,000 27,000	5.0
1+E-25	8/27/98 0800 hrs	Trichloroethylene Tetrachloroethylene	4,000 1,400	7,000 11,000	16,000 27,000	5.0

hrs = hours
J = Estimated value.
ppb = Parts per billion.
R-SV = CT DEP Residential Soil Vapor Criteria.
I/C-SV = CT DEP Industrial/Commercial Soil Vapor Criteria.
L/min = Liters per minute.
Underlined, italicized, and bolded concentrations indicate an exceedance of CT DEP RSR standards.

Exceedances of CT DEP RSR standards were noted in samples collected from throughout AOC No. 1, which is consistent with previous soil and groundwater sampling data. The presence of VOCs in samples collected from the northern extent of AOC No. 1 indicates that contamination may extend off site. No exceedances were noted in soil gas samples collected from the other AOCs.

3.2 Soil Boring Sampling and Installation of Monitoring Wells

From 24 August to 1 September 1998, four shallow overburden monitoring wells (MW-8 through MW-11) and three deep overburden monitoring wells (MW-12 through MW-14) were installed on the property. During well installation activities, soil borings were advanced and split spoon samples were collected at 5-foot intervals and screened for VOCs with a flame ionization detector (FID). The interval advanced at the surface (i.e., 0-2 feet) was sampled for off-site laboratory analysis. A second analytical sample was collected from either the interval collected from 5-7 feet or 10-12 feet, based on visual and FID observations. Split spoon samples collected from a depth of 15 feet and greater were screened and inspected for the main purpose of recording the subsurface lithology. Soils from each sampling interval are described on boring logs. Boring logs are included as Appendix E.

Fifteen soil samples, including a duplicate sample, were collected from the seven soil borings. The soil samples were analyzed for total and synthetic precipitation leaching procedure (SPLP) priority pollutant 13 (PP13) metals and cyanide, PCBs, VOCs, and total petroleum hydrocarbons (TPH). An equipment rinsate blank for all of the above parameters and three trip blanks for VOCs

were also submitted for laboratory analysis. Table 5 summarizes the sample locations and the submitted analyses. The sample locations are depicted on Figure 3.

Table 5

Soil Sample Summary: International Silver Co., Factory H
Soil Samples Collected by START from 24 August to 1 September 1998

Sample Location	Date/ Time (hrs)	Description	Analyses
MATRIX: Soil			
MW-8-2	8/24/98 1344	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-8-7	8/24/98 1413	Split spoon grab soil sample. Depth = 5 to 7 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-9-2	8/25/98 0810	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-9-7	8/25/98 0820	Split spoon grab soil sample. Depth = 5 to 7 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-10-2.5	8/25/98 0950	Split spoon grab soil sample. Depth = 0.5 to 2.5 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-10-12	8/25/98 1015	Split spoon grab soil sample. Depth = 10 to 12 feet. FID = 3.2. Black hydrocarbon staining noted.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-11-2	8/25/98 1240	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 1.5.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-11-7	8/25/98 1250	Split spoon grab soil sample. Depth = 5 to 7 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-12-2	8/25/98 1550	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-12-11	8/25/98 1700	Split spoon grab soil sample. Depth = 9 to 11 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-13-2	8/27/98 1250	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-31-2 Dup. of MW-13-2	8/27/98 1255	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-13-7	8/27/98 1330	Split spoon grab soil sample. Depth = 5 to 7 feet. FID = 1.5.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-14-2	9/1/98 0930	Split spoon grab soil sample. Depth = 0 to 2 feet. FID = 0.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH
MW-14-7	9/1/98 0950	Split spoon grab soil sample. Depth = 5 to 7 feet. FID = 1.5.	VOCs, PCBs, total and SPLP PP13 metals and cyanide, TPH

Table 5

Soil Sample Summary: International Silver Co., Factory H
Soil Samples Collected by START from 24 August to 1 September 1998
(concluded)

Sample Location	Date/ Time (hrs)	Description	Analyses
MATRIX: Aqueous (Quality Control)			
TB-01	8/24/98 1100	Accompanied samples MW-8-2, MW-8-7, MW-9-2, MW-9-7, MW-10-2.5, MW-10-12, MW-11-2, and MW-11-7.	VOCs
TB-02	8/25/98 1400	Accompanied samples MW-12-2, MW-12-11, MW-13-2, MW-31-2, and MW-13-7.	VOCs
TB-03	9/1/98 1000	Accompanied samples MW-14-2 and MW-14-7.	VOCs
RB-01	8/27/98 1000	Soil sample equipment rinsate blank, collected for quality control.	VOCs, PCBs, total PP13 metals, total cyanide, TPH

hrs = hours
FID = Flame ionization detector.
VOCs = Volatile organic compounds by EPA Method 8260B.
PCBs = Polychlorinated biphenyls by EPA Method 8082.
SPLP = Synthetic precipitation leaching procedure by EPA Method 1312.
PP13 metals = Priority pollutant 13 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by EPA Method 3050B or 3010A/6010B and 7471A.
TPH = Total petroleum hydrocarbons by EPA Method 418.1.
Cyanide = Cyanide by EPA Method 9010B.

During START soil sampling activities, soil were screened with an FID. Elevated FID readings ranging from 1.5 to 3.2 units above background were observed in soil borings MW-10, MW-11, MW-13, and MW-14. A petroleum odor and stained soils were observed in soil boring MW-10 at a depth of approximately 10 feet below ground surface (bgs).

Soil sampling results are presented in Table 6. If a substance was detected in a sample, its concentration was listed for that sample. If a substance was not detected in a sample, it was not listed. The results presented in Table 6 are compared against CT DEP RSR standards. Complete analytical results are presented in Appendix F.

Table 6

International Silver Co., Factory H
START Soil Sample Results
Samples Collected 24 August to 1 September 1998

Sample ID	Contaminant and Concentration (ppm)	Total*	SPLP*	R-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
MW-8-2	Antimony	ND	0.015	27	8,200	0.06
	Arsenic	3.5	ND	10	10	0.5
	Beryllium	0.43	ND	2	2	0.04
	Cadmium	0.42	ND	34	1,000	0.05
	Chromium	12.8	ND	NE	NE	0.5
	Copper	172.0	0.027	2,500	76,000	13
	Lead	106.0	0.012	500	1,000	0.15
	Mercury	0.24	ND	20	610	0.02
	Nickel	32.0	ND	1,400	7,500	1
	Silver	2.8	ND	340	10,000	0.5
	Thallium	3.2	ND	5.4	160	0.05
	Zinc	150.0	ND	20,000	610,000	50
	TPH	73.8		500	2,500	2,500
MW-8-7	Arsenic	2.0	ND	10	10	0.5
	Chromium	13.9	ND	NE	NE	0.5
	Copper	15.2	ND	2,500	76,000	13
	Lead	49.9	ND	500	1,000	0.15
	Nickel	9.0	ND	1,400	7,500	1
	Thallium	1.3	ND	5.4	160	0.05
	Zinc	38.1	ND	20,000	610,000	50
MW-9-2	Antimony	2.9	ND	27	8,200	0.06
	Arsenic	4.0	ND	10	10	0.5
	Chromium	11.3	ND	NE	NE	0.5
	Copper	233.0	0.099	2,500	76,000	13
	Lead	121.0	ND	500	1,000	0.15
	Mercury	0.51	ND	20	610	0.02
	Nickel	44.2	ND	1,400	7,500	1
	Silver	14.7	ND	340	10,000	0.5
	Thallium	3.0	ND	5.4	160	0.05
	Zinc	140.0	ND	20,000	610,000	50
	Methylene chloride	0.0336		82	760	1
	TPH	***2,340***		500	2,500	2,500
MW-9-7	Beryllium	0.48	ND	2	2	0.04
	Chromium	19.8	ND	NE	NE	0.5
	Copper	12.6	ND	2,500	76,000	13
	Lead	8.9	ND	500	1,000	0.15
	Nickel	9.7	ND	1,400	7,500	1
	Thallium	1.4	ND	5.4	160	0.05
	Zinc	44.1	ND	20,000	610,000	50

Table 6

International Silver Co., Factory H
START Soil Sample Results
Samples Collected 24 August to 1 September 1998 (continued)

Sample ID	Contaminant and Concentration (ppm)	Total*	SPLP*	R-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
MW-10-2.5	Arsenic	4.2	ND	10	10	0.5
	Beryllium	0.52	ND	2	2	0.04
	Chromium	26.9	ND	NE	NE	0.5
	Copper	108.0	0.034	2,500	76,000	13
	Lead	32.2	0.011	500	1,000	0.15
	Nickel	18.2	ND	1,400	7,500	1
	Silver	2.3	ND	340	10,000	0.36
	Thallium	4.1	ND	5.4	160	0.05
	Zinc	75.2	ND	20,000	610,000	50
	TPH	159		500	2,500	2,500
MW-10-12	Chromium	7.2	ND	NE	NE	0.5
	Copper	12.2	ND	2,500	76,000	13
	Lead	5.3	ND	500	1,000	0.15
	Nickel	6.0	ND	1,400	7,500	1
	Thallium	1.1	ND	5.4	160	0.05
	Zinc	20.3	ND	20,000	610,000	50
	TPH	442		500	2,500	2,500
MW-11-2	Arsenic	3.3	ND	10	10	0.5
	Chromium	8.9	ND	NE	NE	0.5
	Copper	266.0	ND	2,500	76,000	13
	Lead	50.8	ND	500	1,000	0.15
	Mercury	0.18	ND	20	610	0.02
	Nickel	26.1	ND	1,400	7,500	1
	Selenium	2.0	ND	340	10,000	0.5
	Silver	1.1	ND	340	10,000	0.36
	Thallium	***13.8***	ND	5.4	160	0.05
	Zinc	254.0	ND	20,000	610,000	50
	Tetrachloroethylene	0.0376		12	110	1
	Trichloroethylene	0.0045		56	520	1
	TPH	78.7		500	2,500	2,500
MW-11-7	Arsenic	1.6	ND	10	10	0.5
	Beryllium	0.74	ND	2	2	0.04
	Chromium	40.9	ND	NE	NE	0.5
	Copper	18.7	ND	2,500	76,000	13
	Lead	12.8	ND	500	1,000	0.15
	Nickel	41.0	ND	1,400	7,500	1
	Thallium	1.7	ND	5.4	160	0.05
	Zinc	81.4	ND	20,000	610,000	50
	cis-1,2-Dichloroethylene	0.0064		500	1,000	14

Table 6

International Silver Co., Factory H
START Soil Sample Results
Samples Collected 24 August to 1 September 1998 (continued)

Sample ID	Contaminant and Concentration (ppm)	Total*	SPLP*	R-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
MW-12-2	Arsenic	2.3	ND	10	10	0.5
	Chromium	6.2	ND	NE	NE	0.5
	Copper	133	ND	2,500	76,000	13
	Lead	150	ND	500	1,000	0.15
	Nickel	24.9	ND	1,400	7,500	1
	Silver	4.2	ND	340	10,000	0.36
	Thallium	*6.5*	ND	5.4	160	0.05
	Zinc	110	ND	20,000	610,000	50
	Methylene chloride	0.0074		82	760	1
	Tetrachloroethylene	0.0471		12	110	1
	Trichloroethylene	0.0064		56	120	1
	Aroclor 1254 (PCB)	0.0575		1	10	0.005
	TPH	*4,210*		500	2,500	2,500
MW-12-11	Arsenic	4.1	ND	10	10	0.5
	Beryllium	0.49	ND	2	2	0.04
	Chromium	15.9	ND	NE	NE	0.5
	Copper	22.0	ND	2,500	76,000	13
	Lead	9.1	ND	500	1,000	0.15
	Nickel	16.0	ND	1,400	7,500	1
	Thallium	4.4	ND	5.4	160	0.05
	Zinc	39.8	0.040	20,000	610,000	50
	cis-1,2-Dichloroethylene	0.0744		500	1,000	14
	Tetrachloroethylene	0.0045		12	110	1
	Trichloroethylene	0.0044		56	520	1
MW-13-2	Antimony	1.9	ND	27	8,200	0.06
	Arsenic	5.1	ND	10	10	0.5
	Chromium	114	ND	NE	NE	0.5
	Copper	522	0.058	2,500	76,000	13
	Lead	211	0.020	500	1,000	0.15
	Mercury	0.89	ND	20	610	0.02
	Nickel	38.5	ND	1,400	7,500	1
	Silver	16.8	ND	340	10,000	0.36
	Thallium	4.1	ND	5.4	160	0.05
	Zinc	272	0.067	20,000	610,000	50
	TPH	*531*		500	2,500	2,500

Table 6

International Silver Co., Factory H
START Soil Sample Results
Samples Collected 24 August to 1 September 1998 (continued)

Sample ID	Contaminant and Concentration (ppm)	Total*	SPLP*	R-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
MW-31-2 (Dup. of MW-13-2)	Antimony	1.4	ND	27	8,200	0.06
	Arsenic	4.2	ND	10	10	0.5
	Chromium	73.6	ND	NE	NE	0.5
	Copper	522	0.11	2,500	76,000	13
	Lead	367	0.024	500	1,000	0.15
	Mercury	0.56	ND	20	610	0.02
	Nickel	33.7	ND	1,400	7,500	1
	Silver	17.4	ND	340	10,000	0.36
	Thallium	2.8	ND	5.4	160	0.05
	Zinc	295	0.065	20,000	610,000	50
	Methylene chloride	0.0159		82	760	1
	TPH	854		500	2,500	2,500
MW-13-7	Arsenic	2.4	ND	10	10	0.5
	Beryllium	0.90	ND	2	2	0.04
	Chromium	36.7	ND	NE	NE	0.5
	Copper	58.0	ND	2,500	76,000	13
	Lead	22.8	ND	500	1,000	0.15
	Nickel	28.1	ND	1,400	7,500	1
	Thallium	2.4	ND	5.4	160	0.05
	Zinc	129	0.057	20,000	610,000	50
	Acetone	0.0592		500	1,000	140
	TPH	63.5		500	2,500	2,500
MW-14-2	Antimony	ND	0.012	27	8,200	0.06
	Arsenic	3.6	0.012	10	10	0.5
	Chromium	20.6	ND	NE	NE	0.5
	Copper	140	0.079	2,500	76,000	13
	Lead	73.1	0.041	500	1,000	0.15
	Mercury	0.27	ND	20	610	0.02
	Nickel	24.1	ND	1,400	7,500	1.0
	Silver	3.6	ND	340	10,000	0.36
	Thallium	3.0	ND	5.4	160	0.05
	Zinc	91.4	0.088	20,000	610,000	50
	Acetone	0.043		500	1,000	140
	Trichloroethylene	0.0025		56	520	1
	TPH	279		500	2,500	2,500

Table 6

International Silver Co., Factory H
START Soil Sample Results
Samples Collected 24 August to 1 September 1998 (concluded)

Sample ID	Contaminant and Concentration (ppm)	Total*	SPLP*	R-DEC (ppm)	I/C-DEC (ppm)	PMC-GB (ppm)
MW-14-7	Antimony	1.9	ND	27	8,200	0.06
	Arsenic	4.8	ND	10	10	0.5
	Beryllium	0.47	ND	2	2	0.04
	Chromium	22.8	ND	NE	NE	0.5
	Copper	91.3	0.033	2,500	76,000	13
	Lead	88.9	0.033	500	1,000	0.15
	Mercury	0.29	ND	20	610	0.02
	Nickel	12.8	ND	1,400	7,500	1
	Selenium	1.1	ND	340	10,000	0.5
	Silver	1.6	ND	340	10,000	0.36
	Thallium	2.7	ND	5.4	160	0.05
	Zinc	88.5	0.064	20,000	610,000	50
	Acetone	0.246		500	1,000	140

SPLP = Synthetic precipitation leaching procedure.
PCBs = Polychlorinated biphenyls.
TPH = Total petroleum hydrocarbons.
NE = Not Established.
ppm = Parts per million.
R-DEC = CT DEP Residential Direct Exposure Criteria.
I/C-DEC = CT DEP Industrial/Commercial Direct Exposure Criteria.
PMC-GB = CT DEP Pollutant Mobility Criteria for GB classified areas.
ND = Not detected.
* = Total metals and cyanide analysis are used for comparison with CT DEP DEC standards. SPLP metals and cyanide analyses are used for comparison with CT DEP PMC standards. Other parameters (i.e., total VOCs, PCBs, and TPH) can be used for comparison with both CT DEP DEC and CT DEP PMC standards.

Note: All substances detected are listed in the above table. Soil samples were analyzed for total and SPLP PP13 metals, total and SPLP cyanide, PCBs, VOCs, and TPH.

Underlined, italicized, and bolded concentrations indicate an exceedance of CT DEP RSR standards.

Exceedances of CT DEP RSR standards were noted in samples MW-9-2, MW-11-2, MW-12-2, and MW-13-2, which were all collected from an interval of 0 to 2 feet bgs. No exceedances were noted in subsurface samples collected from greater than 2 feet bgs. If future redevelopment plans do not call for a residential use, then the CT DEP RES-DEC standards would not apply, and only samples MW-12-2 and MW-13-2 would exhibit exceedances of CT DEP RSR standards.

3.3 Groundwater Sampling

On 23 and 24 September 1998, START sampled 13 on-site monitoring wells (MW-1 through MW-3 and MW-5 through MW-14) to evaluate the current groundwater conditions. Monitoring well MW-4 was not found and is presumed to have been destroyed. Samples were submitted for VOCs, dissolved PP13 metals, and total cyanide analyses. Samples for dissolved PP13 metals were field filtered using disposable 0.45-micron filters.

Each well was sampled using low-flow sampling techniques. Groundwater samples were collected utilizing dedicated disposable sampling equipment. A total of 14 samples were collected, including a duplicate sample from monitoring well MW-1. A trip blank for VOCs was also submitted for laboratory analysis. Table 7 summarizes the sample locations and the submitted analyses. The groundwater sampling locations are depicted on Figure 3.

Table 7

Groundwater Sample Summary: International Silver Co., Factory H
Groundwater Samples Collected by START on 23 and 24 September 1998

Sample Location (Traffic Report No.)	Date/ Time (hrs)	Description	Analyses
MATRIX: Groundwater			
MW-1 (DAF45B)	9/23/98 1320	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-2 (DAF46B)	9/23/98 1745	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-3 (DAF47B)	9/24/98 0925	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-5 (DAF48B)	9/24/98 1300	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-6 (DAF49B)	9/23/98 1245	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-7 (DAF50B)	9/23/98 1500	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-8 (DAF51B)	9/24/98 1050	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide

Table 7

Groundwater Sample Summary: International Silver Co., Factory H
Groundwater Samples Collected by START on 23 and 24 September 1998
(concluded)

Sample Location (Traffic Report No.)	Date/ Time (hrs)	Description	Analyses
MW-9 (DAF52B)	9/24/98 0955	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-10 (DAF53B)	9/23/98 1530	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-11 (DAF54B)	9/23/98 1400	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-12 (DAF55B)	9/23/98 1600	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-13 (DAF56B)	9/23/98 1645	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-14 (DAF57B)	9/24/98 0830	Grab groundwater sample. Sample for dissolved metals was field filtered.	VOCs, dissolved PP13 metals, total cyanide
MW-15 (DAF58B)	9/23/98 1320	Duplicate of MW-1 for quality control.	VOCs, dissolved PP13 metals, total cyanide
MATRIX: Quality Control			
TB-04 (DAF44B)	9/23/98 1030	Trip blank for quality control.	VOCs

hrs = hours
VOCs = Volatile organic compounds by EPA Method 8260B.
PP13 metals = Priority pollutant 13 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by EPA Method 3010A/6010B and 7470A.
Cyanide = Cyanide by EPA Method 9010B.

During START groundwater sampling activities, the headspace of each monitoring well was screened with an FID. An elevated FID reading of 30 units above background was observed in monitoring well MW-1, accompanied by a strong chemical odor. No other elevated FID reading or odors were detected by START.

Table 8 summarizes the groundwater analytical results. If a substance was detected in a sample, its concentration is listed. If a substance was not detected in any sample, it was not listed. The results presented in Table 8 are compared against CT DEP RSR standards. Analytical results are included as Appendix G.

International Silver Co., Factory H
START Groundwater Sample Results
Samples Collected on 23-24 September 1998

ell ID	Contaminant and Concentration (ppb)		I/C-GWVC (ppb)	RES-GWVC (ppb)	SWPC (ppb)
N-1	cis-1,2-Dichloroethylene	14.6	NA	NA	NA
	trans-1,2-Dichloroethylene	3.8	NA	NA	NA
	Vinyl Chloride	***91.6***	2	2	15,750
	Xylene	3.4	50,000	21,300	NA
N-2	cis-1,2-Dichloroethylene	25.1	NA	NA	NA
	Tetrachloroethylene	15.1	3,820	1,500	88
	Trichloroethylene	69.3	540	219	2,340
N-3	cis-1,2-Dichloroethylene	30.1	NA	NA	NA
	trans-1,2-Dichloroethylene	3.1	NA	NA	NA
	Tetrachloroethylene	5.0	3,820	1,500	88
	Trichloroethylene	24.3	540	219	2,340
N-5	cis-1,2-Dichloroethylene	149	NA	NA	NA
	trans-1,2-Dichloroethylene	30.8	NA	NA	NA
	Vinyl Chloride	***12.7***	2	2	15,750
N-6	No substances detected				
N-7	cis-1,2-Dichloroethylene	3.0	NA	NA	NA
	Tetrachloroethylene	8.0	3,820	1,500	88
	Trichloroethylene	34.0	540	219	2,340
N-8	No substances detected				
N-9	cis-1,2-Dichloroethylene	4.5	NA	NA	NA
	Tetrachloroethylene	5.2	3,820	1,500	88
	Trichloroethylene	26.1	540	219	2,340
N-10	cis-1,2-Dichloroethylene	10.9	NA	NA	NA
	trans-1,2-Dichloroethylene	6.8	NA	NA	NA
	Tetrachloroethylene	70.1	3,820	1,500	88
	Trichloroethylene	45.2	540	219	2,340
N-11	1,1-Dichloroethane	5.2	50,000	34,600	2,970
	1,1-Dichloroethylene	***12.7***	6	1	96
	cis-1,2-Dichloroethylene	2,300	NA	NA	NA
	trans-1,2-Dichloroethylene	34.0	NA	NA	NA
	Tetrachloroethylene	28.8	3,820	1,500	88
	Trichloroethylene	58.4	540	219	2,340
	Vinyl chloride	***165***	2	2	15,750
N-12	cis-1,2-Dichloroethylene	4.9	NA	NA	NA
	Tetrachloroethylene	3.6	3,820	1,500	88
	Trichloroethylene	39.5	540	219	2,340

Table 8

International Silver Co., Factory H
START Groundwater Sample Results
Samples Collected 23-24 September 1998 (concluded)

Well ID	Contaminant and Concentration (ppb)		I/C-GWVC (ppb)	RES-GWVC (ppb)	SWPC (ppb)
MW-13	Tetrachloroethylene	1.1J	3,820	1,500	88
	Trichloroethylene	11.4	540	219	2,340
MW-14	1,1-Dichloroethylene	*1.2*	6	1	96
	cis-1,2-Dichloroethylene	17.0	NA	NA	NA
	Tetrachloroethylene	***290***	3,820	1,500	88
	Trichloroethylene	106	540	219	2,340
MW-15	cis-1,2-Dichloroethylene	16.9	NA	NA	NA
	trans-1,2-Dichloroethylene	4.2	NA	NA	NA
	Vinyl chloride	***103***	2	2	15,750
	Xylene	2.6	50,000	21,300	NA

NA = Not applicable. No CT DEP RSR standards promulgated.
SWPC = CT DEP Surface Water Protection Criteria.
RES-GWVC = CT DEP Residential Groundwater Volatilization Criteria.
I/C-GWVC = CT DEP Industrial/Commercial Groundwater Volatilization Criteria.
ppb = Parts per billion.
All groundwater samples were analyzed for VOCs, dissolved PP13 metals, and total cyanide. Samples for dissolved metals were field filtered.

Underlined, italicized, and bolded concentrations indicate an exceedance of CT DEP RSR standards.

Exceedances of CT DEP RSR standards were noted in samples collected from monitoring wells MW-1, MW-5, MW-11, and MW-14; however, the presence of relatively low level VOCs in 11 of the 13 wells sampled indicates that VOC contamination is widespread throughout the INSILCO site. PCE, TCE, and several of their breakdown products were found at varying levels indicating that active degradation of the parent substances is occurring. In general, the property's shallow overburden monitoring wells (MW-1 through MW-3 and MW-5 through MW-11) had relatively moderate to high concentrations of breakdown products along with elevated levels of PCE and TCE. The property's deep overburden monitoring wells (MW-12 through MW-14) had relatively low concentrations of breakdown products along with elevated levels of PCE and TCE.

It should be noted that although it appears that active degradation is occurring, the toxicity of the breakdown products of PCE and TCE, specifically vinyl chloride, is often greater than the parent substance.

3.4 Groundwater Elevation Survey

Groundwater elevations in the 13 on-site monitoring wells were surveyed and recorded by START personnel on 24 September 1998 to further delineate the groundwater flow direction. Groundwater elevations were referenced to an arbitrary benchmark of 100.00 feet assigned to the top of the casing of MW-12. In addition, a nearby surface water elevation was also surveyed from Harbor Brook. Table 9 summarizes the monitoring well elevations recorded on 24 September 1998. Based on the START groundwater surveying results, groundwater within the shallow aquifer beneath the property flows in a southwesterly direction towards Harbor Brook. This finding is consistent with HRP's determination that the groundwater flow direction was west-to-southwest. Figure 6 is a groundwater contour map for the portion of the property east of Harbor Brook.

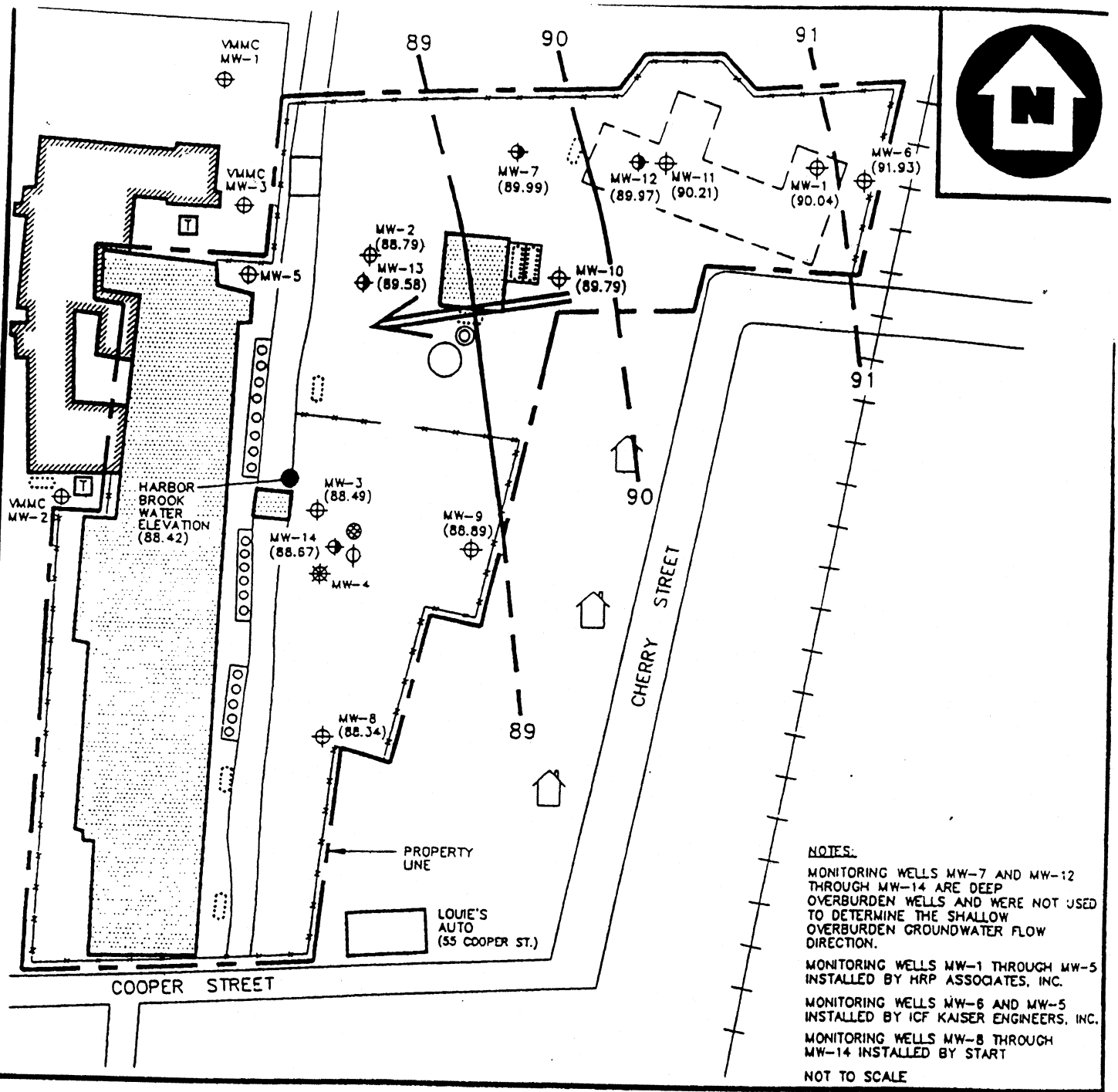
Table 9

International Silver Co., Factory H
Groundwater Elevation Data, 24 September 1998

Monitoring Well	Well Elevation[1]	Measured Depth to Groundwater[2]	Groundwater Elevation[3]
MW-01	106.79	16.75	90.04
MW-02	94.84	6.05	88.79
MW-03	98.91	10.42	88.49
MW-04	Well destroyed	NA	NA
MW-05	Not measured	6.00	NA
MW-06	104.13	12.20	91.93
MW-07*	95.74	5.75	89.99
MW-08	97.39	9.05	88.34
MW-09	99.19	10.30	88.89
MW-10	103.03	13.24	89.79
MW-11	100.53	10.32	90.21
MW-12*	100.00	10.03	89.97
MW-13*	97.90	8.32	89.58
MW-14*	95.60	6.93	88.67
Harbor Brook	NA	NA	88.42

All measurements are in feet.

NA = Not applicable (measurement not obtained).
1 = Elevation of top of well casing.
2 = Measured from top of well casing.
3 = With respect to arbitrary benchmark of 100.00 feet for monitoring well MW-12.
* = Monitoring wells MW-07 and MW-12 through MW-14 are deep overburden monitoring wells and are not used in the determination of the shallow aquifer groundwater flow direction.



NOTES:

MONITORING WELLS MW-7 AND MW-12 THROUGH MW-14 ARE DEEP OVERBURDEN WELLS AND WERE NOT USED TO DETERMINE THE SHALLOW OVERBURDEN GROUNDWATER FLOW DIRECTION.

MONITORING WELLS MW-1 THROUGH MW-5 INSTALLED BY HRP ASSOCIATES, INC.

MONITORING WELLS MW-6 AND MW-5 INSTALLED BY ICF KAISER ENGINEERS, INC.

MONITORING WELLS MW-8 THROUGH MW-14 INSTALLED BY START

NOT TO SCALE

LEGEND

- DESTROYED OVERBURDEN MONITORING WELL
- SHALLOW OVERBURDEN MONITORING WELL
- DEEP OVERBURDEN MONITORING WELL
- MW-2 (88.79) — MONITORING WELL ID/ GROUNDWATER ELEVATION
- GROUNDWATER CONTOUR AND FLOW DIRECTION (DASHED WHERE INFERRED)
- DUST COLLECTOR AREA (DUST PILES)
- UNDERGROUND STORAGE TANK (UST)
- TRANSFORMER
- CATCHBASIN
- RAILROAD TRACKS
- FENCE
- RESIDENCE

SHALLOW OVERBURDEN GROUNDWATER CONTOUR MAP

INTERNATIONAL SILVER CO.
FACTORY H
COOPER STREET
MERIDEN, CONNECTICUT

WESTON®
MANAGERS DESIGNERS/CONSULTANTS
REGION I SUPERFUND TECHNICAL ASSESSMENT AND RESPONSE TEAM

TDD #	DRAWN BY:	DATE
98-05-0098	W. SHAW	12/14/98

FILE NAME: P:\BSA\97050026\FIGURES\INSIL_GW

FIGURE 6

The well elevation for monitoring well MW-5 was not surveyed, as it is located on the west side of Harbor Brook and does not provide enough information to determine groundwater flow direction on the western portion of the property. Monitoring wells MW-7 and MW-12 through MW-14 are deep overburden monitoring wells and were, therefore, not used to infer the flow direction of groundwater in the shallow portion of the overburden aquifer. The groundwater flow direction within the deep aquifer beneath the eastern portion of the property is approximately west; however, insufficient information is available to determine an exact flow direction.

3.5 Harbor Brook Sediment and Surface Water Sampling

HRP conducted surface water sampling from Harbor Brook as part of their 1988 SA. HRP surface water sampling results indicated the presence of TCE at 1 ppb, 2 ppb, and 10 ppb at locations upstream, on-site, and downstream of the property, respectively.

On 24 August 1998, three sediment and three surface water samples were collected by START personnel from Harbor Brook. The sediment samples were analyzed for VOCs, PCBs, total PP13 metals, and total cyanide. The surface water samples were analyzed for VOCs, total PP13 metals, and total cyanide. A trip blank for VOCs was also submitted for laboratory analysis. Table 10 summarizes the sediment and surface water sample locations and the submitted analyses. The sample locations are depicted on Figure 3.

Table 10

Sediment and Surface Water Sample Summary: International Silver Co., Factory H Sediment and Surface Water Samples Collected by START on 24 August 1998

Sample Location (Traffic Report No.)	Date/ Time (hrs)	Description	Analyses
MATRIX: Sediment			
SD-1 (DAFY32)	8/24/98 1720	Grab sediment sample from Harbor Brook approximately 450 feet downstream of the footbridge.	VOCs, PCBs, total PP13 metals, total cyanide
SD-2 (DAFY31)	8/24/98 1730	Grab sediment sample from Harbor Brook approximately 300 feet downstream of the footbridge.	VOCs, PCBs, total PP13 metals, total cyanide
SD-3 (DAFY33)	8/24/98 1745	Grab sediment sample from Harbor Brook approximately 25 feet downstream of the footbridge.	VOCs, PCBs, total PP13 metals, total cyanide
MATRIX: Surface Water			
SW-1 (DAFY34)	8/24/98 1720	Grab surface water sample from Harbor Brook approximately 450 feet downstream of the footbridge.	VOCs, total PP13 metals, total cyanide

.ble 10

Sediment and Surface Water Sample Summary: International Silver Co., Factory H Sediment and Surface Water Samples Collected by START on 24 August 1998 (concluded)

Sample Location (Traffic Report No.)	Date/ Time (hrs)	Description	Analyses
SW-2 (DAFY35)	8/24/98 1730	Grab sediment sample from Harbor Brook approximately 300 feet downstream of the footbridge.	VOCs, total PP13 metals, total cyanide
SW-3 (DAFY36)	8/24/98 1745	Grab sediment sample from Harbor Brook approximately 25 feet downstream of the footbridge.	VOCs, total PP13 metals, total cyanide
MATRIX: Quality Control			
TB-01 (DAFY22)	8/24/98 1100	Trip blank for quality control.	VOCs

hrs = hours
VOCs = Volatile organic compounds by EPA Method 8260B.
PCBs = Polychlorinated biphenyls by EPA Method 8082.
PP13 metals = Priority pollutant 13 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by EPA Method 3050B or 3010A/6010B and 7470A or 7471A.
Cyanide = Cyanide by EPA Method 9010B.

During START sediment and surface water sampling activities, samples were screened with an FID. No FID readings above background were noted during the START sediment and surface water sampling event.

Table 11 summarizes the sediment and surface water analytical results. If a substance was detected in a sample, its concentration is listed. If a substance was not detected in a sample, it was not listed. No CT DEP RSR standards have been promulgated for sediment or surface water, and as a result, no comparison with CT DEP RSR standards can be presented. Analytical results are included as Appendix F.

Table 11

International Silver Co., Factory H
START Sediment and Surface Water Samples
Samples Collected on 24 August 1998

Sample ID	Compound	Concentration (ppm)
MATRIX: Sediment		
SD-1	Arsenic	2.4
	Chromium	10.7
	Copper	47.6
	Lead	63.6
	Nickel	10.6
	Thallium	2.0
	Zinc	66.4
SD-2	Arsenic	1.3
	Chromium	30.3
	Copper	46.5
	Lead	26.7
	Nickel	10.5
	Thallium	2.1
	Zinc	82.5
	Tetrachloroethylene	0.0943
	Trichloroethylene	0.013
SD-3	Antimony	4.6
	Arsenic	2.8
	Chromium	25.3
	Copper	116
	Lead	103
	Mercury	0.070
	Nickel	17.0
	Silver	1.0
	Thallium	3.5
	Zinc	164
	Trichloroethylene	0.0024
MATRIX: Surface Water		
SW-1	cis-1,2-Dichloroethylene	0.0037
	Trichloroethylene	0.0054
SW-2	cis-1,2-Dichloroethylene	0.0031
	Trichloroethylene	0.0030
SW-3	cis-1,2-Dichloroethylene	0.0032
	Trichloroethylene	0.0023

ppm = Parts per million.
Sediment samples were analyzed for VOCs, PCBs, total PP13 metals, and cyanide.
Surface water samples were analyzed for VOCs, total PP13 metals, and cyanide.

The highest sediment contaminant concentrations were noted in upgradient sample SD-03. This indicates that an off-site upgradient source of contamination may be present and may be impacting the on-site stretch of Harbor Brook. This is further supported by the surface water sampling results which document the presence of VOCs in upgradient sample SW-03.

3.6 Wipe Sampling

The banks of Harbor Brook along the stretch adjacent to the INSILCO property are flanked by retaining walls constructed of fieldstone. Several outfall pipes are located within the retaining walls and are believed to have been discharge pipes for industrial process wastewaters. The face of the retaining wall is also known to be stained in several places. The nature of the staining is unknown. On 27 August 1998, three wipe samples were collected from the west retaining wall along Harbor Brook by START personnel. The wipe samples were analyzed for PCBs, total PP13 metals, and total cyanide. Table 12 summarizes the wipe sample locations and the submitted analyses. The sample locations are depicted on Figure 3.

Table 12

Wipe Sample Summary: International Silver Co., Factory H
Wipe Samples Collected by START on 27 August 1998

Sample Location (Traffic Report No.)	Date/ Time (hrs)	Description	Analyses
MATRIX: Wipe Samples			
Wipe-1 (DAFY40)	8/27/98 0930	Wipe sample from west retaining wall along Harbor Brook.	PCBs, total PP13 metals, and total cyanide
Wipe-2 (DAFY41)	8/27/98 0945	Wipe sample from west retaining wall along Harbor Brook.	PCBs, total PP13 metals, and total cyanide
Wipe-3 (DAFY42)	8/27/98 1000	Wipe sample from west retaining wall along Harbor Brook.	PCBs, total PP13 metals, and total cyanide

hrs = hours
PCBs = Polychlorinated biphenyls by EPA Method 8082.
PP13 metals = Priority pollutant 13 metals (antimony, arsenic, beryllium, cadmium, chromium, copper, lead, mercury, nickel, selenium, silver, thallium, and zinc) by EPA Method 3050B or 3010A/6010B and 7471A.
Cyanide = Cyanide by EPA Method 9010B.

During START wipe sampling activities, samples were screened with an FID. No FID readings above background were noted during the START wipe sampling event.

Table 13 summarizes the wipe sample analytical results. If a substance was detected in a sample, its concentration is listed. If a substance was not detected in a sample, it was not listed. No CT DEP RSR standards have been promulgated for wipe samples, and as a result, no comparison with CT DEP RSR standards can be presented. Analytical results are included as Appendix F.

Table 13

International Silver Co., Factory H
START Wipe Samples
Samples Collected on 27 August 1998

Sample ID	Compound	Concentration (μg/wipe)
MATRIX: Wipe Samples		
WIPE-1	Antimony	0.58
	Arsenic	0.55
	Cadmium	1.1
	Chromium	9.0
	Copper	1,210
	Lead	31.2
	Nickel	159
	Selenium	0.76
	Silver	7.2
	Zinc	842
WIPE-2	Antimony	0.59
	Chromium	5.1
	Copper	157
	Lead	27.8
	Nickel	17.3
	Selenium	1.1
	Zinc	127
WIPE-3	Antimony	1.1
	Arsenic	2.2
	Cadmium	0.66
	Chromium	20.1
	Copper	2,730
	Lead	47.5
	Nickel	326
	Selenium	1.2
	Silver	18.3
	Zinc	1,480

μg/wipe = Micrograms per wipe.
Wipe samples were analyzed for PCBs, total PP13 metals, and total cyanide.

Elevated concentrations of several metals were noted in the START wipe samples. The substances detected are consistent with those detected in other media collected on the property. No PCBs or cyanide concentrations were detected.

4.0 DATA USABILITY

The analytical data generated during the INSILCO BTSA have been reviewed in accordance with the procedures outlined in the Generic BTSA QAPP, dated 23 July 1997. The data review memoranda and the analytical data with appropriate qualifiers are included as appendices to this report.

5.0 CONCLUSIONS

Previous assessments have documented the presence of various potential sources of contamination throughout the INSILCO property. These source areas are summarized in Table 3 of this report. In addition, START has prepared a Cleanup Summary Memorandum which details the major contamination source areas as well as identifies additional assessment activities which may be required (see Appendix H).

As part of their 1988 SA, HRP sampled soil, groundwater, and dust debris. HRP found on-site soil and groundwater contaminated with VOCs at levels below applicable CT DEP RSR standards. HRP also identified elevated levels of metals in dust piles and identified several source areas, including abandoned tanks and potential ACMs.

AEI completed an Assessment of Site Environmental Conditions Report on 24 January 1990. As part of their investigation, AEI sampled suspect ACMs and conducted a soil gas survey. AEI sampling of suspect ACMs indicated the presence of friable asbestos in various building materials. Results of the AEI soil gas survey indicated elevated levels of organic vapors in the northeast portion of the INSILCO property in the in the vicinity of former Building D.

In 1990, ICF sampled groundwater and conducted a UST inventory of four on-site USTs. Laboratory analysis of groundwater samples indicated the presence of elevated VOCs. Laboratory analysis of the sampled USTs indicated that they contained petroleum products with VOCs and various metals. The contents from the four sampled USTs were reportedly pumped out and disposed of off site.

In February 1998, EPA Region I and START completed a Removal Program PA/SI to determine if hazards to public health or the environment were present at the INSILCO property. Based on the results of the PA/SI, EPA Region I has determined that a Removal Action pursuant to the National Contingency Plan (40 CFR 300.15) is necessary. The time frame for initiating the Removal Action and the detailed scope of work to be completed have not yet been determined. However, based on information provided by EPA Region I, it is anticipated that activities will include the removal of on-site drums, dust piles, and the mitigation of on-site ACM source areas.

As part of this BTSA investigation, START sampled soil, groundwater, surface water, sediment, and the retaining wall along Harbor Brook for laboratory analysis. START also sampled soil gas in the vicinity of former Building D for field screening analysis. Based on comparisons of analytical results with current CT DEP standards, it appears that several site areas have been impacted by known or potential sources identified in Table 3.

BTSA soil gas, soil, and groundwater sampling results document exceedances of the CT DEP RSR standards. Soil gas sampling results found exceedances of CT DEP RSR standards in AOC No. 1 (in the vicinity of former Building D). Subsurface soil samples collected from a depth of greater than 2 feet found no exceedances of CT DEP RSR standards. Groundwater samples indicated the presence of both shallow and deep aquifer contamination. START groundwater samples also indicate that active degradation of VOCs is occurring, especially in the shallow aquifer; however, the by-products of degradation may be more harmful than the parent substance.

Surface water, sediment, and retaining wall samples indicated elevated concentration of various contaminants; however, no comparison with CT DEP RSR standards can be made as none have been promulgated for these media.

Based on the results of this BTSA investigation, widespread contamination exists on the INSILCO property. The initiation of the upcoming EPA Region I Removal Action will help mitigate identified on-site hazards to public health or the environment. It is recommended that upon completion of the EPA Region I Removal Action, the INSILCO site be re-evaluated to determine whether additional cleanup actions are warranted to meet CT DEP cleanup standards. In addition, further site characterization activities may also be required to fully delineate the extent of any residual contamination at the site and to characterize the risks to public health or the environment from any remaining on-site sources.

Advanced
Environmental
Interface, Inc.

8 Old Indian Trail • Middlefield, CT 06455
(860) 349-3559 • Fax (860) 349-2286

February 16, 2006

REMEDIATION SECTION, 2ND FL
RECEIVED

FEB 2 2 2006

WASTE MANAGEMENT BUREAU

Mr. Raymond L. Frigon, Jr.
Connecticut Department of Environmental Protection
Bureau of Waste Management
Remediation Section
79 Elm Street
Hartford, Connecticut 06106-5127

Subject: Removal/Stabilization Activities Summary Report, Former International Silver Company/Insilco Factory H Site, Meriden, CT

Dear Ray:

Please find enclosed a copy of the *Removal/Stabilization Activities Summary Report* AEI prepared, on behalf of MidState Medical Center, for the former International Silver Company/Insilco Factory H site on Cooper Street in Meriden, CT. Do not hesitate to call me if you need additional information or have any questions. Thank you for your assistance and cooperation during the project.

Sincerely,

Advanced Environmental Interface, Inc.

Joe Santovasi

Joseph A. Santovasi, CPG, LEP
Principal

cc. Lucille Janatka, CEO, MidState Medical Center
Eric Lukingbeal, Esq., Robinson & Cole LLP

REMEDIATION SECTION, 2ND FL
RECEIVED

FEB 2 2 2006

WASTE MANAGEMENT BUREAU

REMOVAL/STABILIZATION ACTIVITIES SUMMARY REPORT

FORMER INTERNATIONAL SILVER COMPANY / INSILCO FACTORY H SITE
Cooper Street
Meriden, Connecticut

Prepared on behalf of:

MidState Medical Center

Prepared By:

Advanced Environmental Interface, Inc.
8 Old Indian Trail
Middlefield, Connecticut 06455
(860) 349-3559

February 15, 2006

AEI-98J-026

BUREAU WATER MANAGEMENT
SITE NAME Insilco Factory H
ADDRESS Cooper / Cherry St
TOWN Meriden
FILE TYPE Remediation

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1.0 INTRODUCTION

This Removal/Stabilization Activities Summary Report has been prepared by Advanced Environmental Interface, Inc. (AEI), on behalf of MidState Medical Center (MMC). The Removal/Stabilization Activities Summary Report presents the activities conducted under the guidance of AEI and the Connecticut Department of Environmental Protection (DEP) during 2004-2005 to remove certain hazardous materials and stabilize certain hazardous conditions at the former International Silver Company/Insilco Factory H site on Cooper Street in Meriden, CT. The types and quantities of materials identified for removal/stabilization during this project were based in large part upon the following reports, which are the most recent environmental investigation reports for the site:

- Roy F. Weston, Inc., September 9, 1999: International Silver Co., Factory H, Brownfields Targeted Site Assessment Final Report, Prepared for U. S. EPA Region I Office of Site Remediation and Restoration;
- GZA GeoEnvironmental, Inc., June 2000: Supplemental Phase II Environmental Site Evaluation, International Silver Company, Factory H Site, Meriden, Connecticut.

The removal/stabilization activities conducted at the Factory H site include:

(1) demolition, removal and disposal of a dilapidated smokestack at the former boiler house (Building C);

(2) removal and disposal of metal-laden dust piles beneath former cyclone dust collectors adjacent to the main building (Building A);

(3) removal and disposal of metals-impacted surface soils beneath/adjacent to the dust collectors and in two areas on the east side of Harbor Brook, and installation of a 2-ft.-thick cover of two-inch process stone over the excavated areas;

(4) assessment of the presence of potential/suspected underground storage tanks (USTs) suggested by prior investigations, via ground penetrating radar and test pits;

(5) removal and disposal of the contents of USTs identified on the site (a sump pit, two 20,000-gal. fuel oil tanks, a 10,000-gal. waste water tank, a 275-gal. gasoline tank, and a 1,000-gal. kerosene tank);

(6) removal and disposal of the 10,000-gal. waste water UST;

(7) removal and disposal of the 275-gal. gasoline UST;

(8) removal and disposal of assorted containers of hazardous or potentially hazardous materials;

(9) removal and disposal of several piles of impacted soil and debris (some including asbestos, metals and petroleum-related compounds, and fire debris);

(10) removal and disposal of several piles of asphalt and debris;

(11) removal and disposal of asbestos-impacted soil beneath steam lines between Buildings A and C;

(12) removal and disposal of friable asbestos insulation that had fallen or that was at risk of falling to the floor in the former transformer/electrical house (Building B), the boiler house (Building C), and in certain locations of the main building (Building A), and to the ground surface outside the buildings;

(13) removal and disposal of lead-based paint that had fallen or that was at risk of falling to the floor in Buildings B and C and in certain locations in Building A;

(14) removal and disposal of non-friable asbestos-containing building materials found on the adjacent ground surfaces and inside

Buildings A, B, and C, as well as roofing material removed from the two 20,000-gal. fuel oil USTs bunker on the east side of Building C;

(15) removal and disposal of accessible metal-laden dust residue from the dust collectors adjacent to Building A;

(16) removal and disposal of certain dilapidated overhead metal duct work between Building A and the dust collectors, and between Building C and the smokestack;

(17) removal of certain sections of the dilapidated roof of Building C;

(18) installation of plywood over open entrances (doors and windows) to Building A;

(19) installation of a chain-link fence around Building C;

(20) repair and re-installation of certain portions of a chain-link fence around Buildings A and B;

(21) securing of boiler doors and openings in Building C via spot welding;

(22) encapsulation of certain remaining asbestos-containing materials on the boiler in Building C;

(23) removal and disposal of metal window frames with asbestos-containing glazing from Building C;

(24) installation of plywood barriers over certain open second and third floor entrances (doors/openings) to the fire-damaged areas and elevator shafts in Building A;

(25) removal of brush and trees around the perimeter of Buildings A, B, and C and in work areas as required; and

(26) sealing certain pipe penetrations (via versi-foam) that were exposed during work activities on the east wall of Building A, on the first floor of Building C, and on the Harbor Brook retaining wall.

Details of the removal/stabilization activities and estimated quantities of hazardous materials removed from site are provided in subsequent sections of this summary report. Removal/stabilization areas are shown on Figure A (attached).

2.0 PRINCIPALS

The identity and roles of the principals involved with this project are:

Affiliation	Name	General Role
Client	MidState Medical Center (MMC)	Former property owner; responsible for signing waste manifests and similar documents.
Property owner	BL&A Associates Limited Partnership	Absent/Defunct (?).
Environmental Attorney	Eric Lukingbeal, Esq., Robinson & Cole LLP	Legal counsel to MMC.
Environmental Consultant	Joseph Santovasi, Advanced Environmental Interface, Inc. (AEI)	Represent MMC; work with DEP on project; assist with removal/stabilization actions.
DEP Staff	Ray Frigon	Review and approval of removal/stabilization actions and payments from DEP-controlled escrow fund.
Technical Consultant: Asbestos and Lead	ChemScope, Inc.	Asbestos and lead abatement work activities; project planner & monitor.
Technical Consultant: Structural/Safety	GeoDesign, Inc.	Structural and safety assessment of buildings/structures.
Municipal Authorities	City of Meriden	Local municipality; permits.
Remediation Contractors	Earth Technology, Inc.; Cyn Environmental Services; Fleet Environmental Services LLC; and Environmental Services, Inc.	Conducted removal/stabilization activities; subcontractors to AEI.

3.0 PROJECT COORDINATION

The project coordinator was Joseph A. Santovasi, CPG, LEP of Advanced Environmental Interface, Inc. (AEI), which coordinated this project on behalf of MMC. An AEI representative was on-site during all removal/stabilization activities. Ray Frigon of CTDEP provided guidance during the project.

4.0 SITE DESCRIPTION

4.1 Site Location

The site is situated on Cooper Street in Meriden, Connecticut. It is on the north side of Cooper Street, and south of Butler Street, in a mixed commercial and residential area. A site location map is attached (Figure B).

4.2 Site Use

The site is occupied by three abandoned buildings of the former International Silver Company/Insilco Factory H. The buildings are in poor to dilapidated condition. Abutting properties are occupied by commercial businesses and residences.

Factory H formerly housed various operations including, but not limited to, the manufacturing of plated silverware (flatware, cutlery, ornamental casket trimmings) and hardware. Processes included casting, plating, machining, trimming, polishing, buffing, forging, storage, and shipping. Factory H produced silverware from the 1800s until approximately 1974 when the site was vacated. The property and factory have been vacant since 1974.

Factory H is known to have used alkali soaps, sulfuric acid, oils, nickel, silver, chromium, copper, zinc, acid and alkali solutions, and halogenated and non-halogenated solvents. Other constituents of concern on the site include, but may not be limited to, other metals, cyanide, PCBs, total petroleum hydrocarbons, and volatile and semi-volatile organic compounds.

4.3 Site Layout

The former Factory H site is approximately 7.2 acres in area. It is bisected by Harbor Brook and has three abandoned buildings identified as Building A (a four-story manufacturing building), Building B (a two-story transformer/electrical house), and Building C (a two-story boiler house). A fourth building (Building D), formerly on the northeast portion of the site, was destroyed by fire and demolished circa 1980. Initially a gun manufacturing shop, Building D housed a machine shop, a foundry, and a pattern shop.

Approximately 25 cyclone-like dust collectors are situated along the east side of Building A. The dust collectors collected dust from the former silverware manufacturing operations. The site layout is shown on the site schematic in Appendix A, which was prepared by Roy F. Weston, Inc.

4.4 Site Utilities

The site is connected to municipal water and sewer service, which are currently inactive. Underground natural gas, electric, and telephone utilities are on-site.

5.0 NATURE OF CONTAMINANTS

Contaminants detected and/or suspected on the site consist primarily of acids, alkalis, asbestos, lead and other metals, cyanide, PCBs, petroleum hydrocarbons, and volatile and semi-volatile organic compounds.

6.0 DESCRIPTION OF REMOVAL/STABILIZATION ACTIVITIES

6.1 Site Preparation Work

In addition to appropriate enclosures necessary for asbestos and lead-based paint removal actions, the remediation contractors provided the following site preparation measures:

1. Tracking Pads: Several tracking pads were installed on the site. A tracking pad was installed to remove dirt/mud from truck and vehicle tires before they left the east, unpaved portion of the site and entered Cooper Street. The tracking pad was comprised of two-inch process stone (underlain by filter fabric) of the following dimensions: ~300 feet long by 15 feet wide by 1 foot thick. A second tracking pad was installed to remove dirt/mud from truck and vehicle tires before they left the Building A dust collector area and entered Cooper Street. The tracking pad was comprised of two-inch process stone (underlain by filter fabric) of the following dimensions: ~75 feet long by 10 feet wide by 1 foot thick. A third tracking pad was installed to remove dirt/mud from truck and vehicle tires before they left the Building A dust collector area and entered Butler Street. The tracking pad was comprised of two-inch process stone (underlain by filter fabric) of the following dimensions: ~75 feet long by 15 feet wide by 1 foot thick. A fourth tracking pad was installed to remove dirt/mud from truck and vehicle tires before they left the east, unpaved portion of the site and entered Cherry Street. The tracking pad was comprised of two-inch process stone (underlain by filter fabric) of the following dimensions: ~300 feet long by 15 feet wide by 1 foot thick.

2. Siltation, Sedimentation and Erosion Control Measures: Siltation, sedimentation, and erosion control measures including hay bales and silt fences were installed on the east and west banks of Harbor Brook where any activities were conducted, as appropriate, and were maintained in accordance with State of Connecticut and local requirements or guidelines. In addition, stockpiles of contaminated soil staged temporarily on-site were placed on and covered by polyethylene sheeting, and encircled by silt fence and hay bales.

3. Local Permits: All permits required by the City of Meriden and State of Connecticut were obtained. These included a city building permit for the installation of security fencing, a city Inland Wetlands permit for conducting

work activities within 50 ft. of Harbor Brook, and a State asbestos abatement permit/alternate work practices plan.

4. Other Site Preparation Measures: It was deemed necessary to install structural supports and other worker protection measures inside/outside the dilapidated portions of Buildings A, B, and C where work was performed. A structural engineering firm (GeoDesign, Inc.) was utilized to ensure that appropriate worker protection measures and structural modifications were implemented.

6.2 Removal/Stabilization Activities

(1) Demolition and Removal of Building C Smokestack

The Building C smokestack was approximately 132 feet high and constructed of yellow brick and mortar with metal stabilization rings at three almost equally spaced heights. Due to the effects of weathering, it was structurally unsound (bricks falling off the top posed a safety hazard). The demolition of the smokestack was accomplished via a 125-ton crane and a wrecking ball. The smokestack was taken down one layer of bricks at a time (from the top down) to be protective of site workers and the public.

Approximately 209 tons of brick from the smokestack was disposed of at Valley Sand and Gravel in North Haven, CT, and one 20-cubic-yard container of metal debris was disposed of at a metal recycling facility.

(2) Removal of Metal-Laden Dust Piles Beneath Former Cyclone Dust Collectors

Metal-laden dust amounting to a volume of approximately thirty-three 55-gallon drums (estimated at 17,000 lbs.) was removed from the site and disposed of at CYN Oil Corp. in Stoughton, MA.

(3) Removal of Metals-Impacted Surface Soils Beneath/Adjacent to Dust Collectors and in Two Areas on East Side of Harbor Brook

1,356 tons of impacted soil was removed to a depth of ~2 feet below grade, and was disposed of at American Reclamation Corporation (AMREC) in Charlton, MA. The locations of the excavated impacted soils are shown on Figure A.

After the ~2-ft. layer of impacted soil was removed adjacent to the dust collectors, post-excavation soil samples were collected using a Geoprobe and hand tools. Soil sample locations are shown on Figure C. Subsequent to sample collection, a 2-ft.-thick cover of two-inch process stone was installed to reduce the accessibility of metals-impacted soils remaining at depths greater than 2 feet. Soil sample results are summarized on Table A. Lab reports are in Appendix B.

(4) Assessment of the Presence of Suspected USTs

Of the nine suspected USTs identified by prior environmental investigations, only a 275-gal. gasoline UST, a sump pit, and an empty concrete vault were found via a ground penetrating radar (GPR) survey and test pits.

Locations of identified USTs, the sump pit, and the concrete vault are shown on Figure A.

(5) Removal of UST Contents

The contents (liquid and sludge to less than one inch depth) of the sump pit, two 20,000-gal. fuel oil tanks, the 10,000-gal. waste water tank, the 275-gal. gasoline tank, and the 1,000-gal. kerosene tank were removed from the site and disposed of at an offsite facility. This activity generated 9,028 gals. of liquid waste that was disposed of at Clean Water of New York, Inc. in Staten Island, NY; three 20-cubic-yard containers of sludge/soil that were disposed of at Phoenix Soil LLC in Waterbury, CT;

and seven 55-gal. drums of metals-impacted sludge/liquid that were disposed of at Northland Environmental, Inc. in Providence, RI. The locations of the USTs and sump pit are shown on Figure A.

(6) Removal and Disposal of the 10,000-gal. Waste Water UST

The 10,000-gal. UST was cleaned, extracted using a 25-ton crane and an excavator, removed from the site, and disposed of at Massachusetts Tank, Inc. in Chicopee, MA.

AEI sampled tank grave soil and ground water. Results are summarized on Table A (soils) and provided in Appendix C (soil and ground water). Soil sample locations are shown on Figure C.

(7) Removal and Disposal of the 275-gal. Gasoline UST

The 275-gal. UST was cleaned, extracted using a backhoe, removed from the site, and disposed of at Massachusetts Tank, Inc. in Chicopee, MA.

AEI sampled tank grave soil. Ground water was not present in the grave. Results are summarized on Table A and provided in Appendix D. Soil sample locations are shown on Figure C.

(8) Removal of Containers of Waste

Empty assorted containers and several partially-filled 55-gallon drums were collected from inside and adjacent to Buildings A, B, and C, removed from the site, and disposed of at Cyn Oil Corp. in Stoughton, MA. A total of thirteen containers was removed.

(9) Removal of Other Stained-Soil/Debris Piles

708 tons of stained and impacted soil and debris piles was excavated, removed from the site, and disposed of at American Reclamation Corporation (AMREC) in Charlton, MA.

(10) Removal and Disposal of Asphalt/Construction Debris Piles

268 tons of asphalt/construction debris was removed from the site and disposed of at Modern Materials in Hamden, CT.

(11) Removal and Disposal of Asbestos-Impacted Soil beneath Steam Lines between Buildings A and C

Two 20-cubic-yard containers of asbestos-impacted soil was excavated, removed from the site, and disposed of at Waste Management of N.H. in Rochester, NH via Waste Management N.E.E.T.

ChemScope, Inc. provided technical guidance and final clearance inspection of the work area.

(12) Removal of Fallen or At-Risk-of-Falling Asbestos-Containing Insulation from Building C, Building B, and Building A North End, Second and Third Floors and North Stairwell Area

Asbestos-containing building materials were removed and disposed of at Valley Landfill in Irwin, PA via Waste Management N.E.E.T. This activity generated three 100-cubic-yard box trailers, and one 20-cubic-yard container of waste.

ChemScope, Inc. provided technical guidance and visual inspections of the work areas as well as air-monitoring and final clearance inspections.

(13) Removal of Fallen or At-Risk-of-Falling Lead-Based Paint from Building C, Building B, and Building A North End, Second and Third Floors and North Stairwell Area

One 55-gallon drum of lead-based paint chips was generated, removed from the site, and disposed of at Northland Environmental, Inc. in Providence, RI. Additional lead-based paint chips were disposed of with asbestos-containing building materials that also had fallen on the building floors.

ChemScope, Inc. provided technical guidance and visual inspections of work areas.

(14) Removal of Non-Friable Asbestos-Containing Building Materials

Non-friable asbestos-containing building materials found on the adjacent ground surfaces and inside Buildings A, B, and C and the roof material of the UST bunker located on the east side of Building C were removed from the site and disposed of at High Acres Landfill in Fairport, NY via Waste Management N.E.E.T. This activity generated six 20-cubic-yard containers of non-friable asbestos-containing building materials.

ChemScope, Inc. provided technical guidance and visual inspections of the work areas.

(15) Removal of Accessible Metal-Laden Dust Residues from the Dust Collectors adjacent to Building A

Dust collectors were mechanically cleaned of loose dust and debris, which was removed from the site with the metals-impacted soils and disposed of at American Reclamation Corporation (AMREC) in Charlton, MA.

(16) Removal of Certain Dilapidated Overhead Metal Duct Work between Building A and the Dust Collectors, and between Building C and the Smokestack

The metal duct work between the dust collectors and Building A and also between Building C and the former smokestack was dilapidated and posed a safety hazard, and therefore was removed and disposed of at a metal recycling facility.

(17) Removal of Certain Sections of the Dilapidated Roof of Building C

The sheet-metal composite flat roof on Building C was dilapidated and posed a safety hazard, and therefore certain sections were removed and disposed of at a metal recycling facility.

(18) Installation of Plywood Barriers Over Open First Floor Entrances (Doors and Windows) to Building A and Posting of Asbestos Warning Signs

The installation of plywood barriers and the posting of asbestos warning signs were conducted to secure Building A.

(19) Installation of Chain-Link Fence and Gates Around Building C

The installation of a chain-link fence around Building C was conducted to secure the work area around the building during the removal of asbestos and lead-containing materials.

(20) Repair and Re-Installation of Certain Portions of Chain-Link Fence Around Buildings A and B

The repair and re-installation of chain-link fence around Buildings A and B was conducted to secure the areas around the buildings during the removal of asbestos and lead-containing materials, as well as the metals-impacted soil removal activities conducted in this area.

(21) Welded Shut Certain Boiler Doors and Openings in Building C

Certain boiler doors and openings in Building C were spot welded to secure those areas.

(22) Encapsulation of Certain Remaining Asbestos-Containing Materials on the Boiler in Building C

Encapsulation of certain remaining asbestos-containing materials on the boiler in Building C was conducted to secure those areas.

(23) Removal of Window Frames Containing Asbestos Glazing from Building C

Removal of metal window frames with asbestos-containing glazing from Building C was conducted. This material was disposed of with the other non-friable asbestos building materials at High Acres Landfill in Fairport, NY via Waste Management N.E.E.T.

(24) Installation of Plywood Barriers Over Certain Open Second and Third Floor Entrances (Doors/Openings) to the Fire Damaged Areas in Building A and Elevator Shafts

Installation of plywood barriers over certain open second and third floor entrances (doors/openings) to the fire-damaged areas and elevator shafts in Building A was conducted to secure those areas.

(25) Removal of Brush and Trees Around Buildings A, B, and C and Site Work Areas as Required

Removal of brush and trees around the perimeter of Buildings A, B, and C and in other site work areas was required to establish safe work zones.

(26) Sealed-Off Certain Pipe Penetrations (via versi-foam) that were Exposed During Work Activities on the East Wall of Building A, the First Floor of Building C, and the Harbor Brook Retaining Wall

Exposed pipe penetrations were sealed off using versi-foam to eliminate those potential pathways for contaminant migration.

All project documentation including disposal documents, etc. is on-file at AEI.

6.3 Site Restoration Work

1. Backfilling: Remediation contractors provided clean fill material comprised of either bank run gravel or two-inch process stone to backfill the excavated UST areas, the soil excavation areas adjacent to and below the dust collectors, and the two excavation areas on the east side of Harbor Brook where impacted soils were removed. Backfilling was done in areas identified on Figure A as Removal/Stabilization Area R (approximately 1,100 tons of two-inch process stone) and Area G (approximately 120 tons of bank run gravel). Also mason-like sand (approximately 20 tons) was placed in an approximate two-foot layer along a 30-foot section of natural gas pipe exposed during the removal of the 10,000-gal. waste water UST, at the request of Yankee Gas Services Company. In addition, approximately 50

tons of two-inch process stone was used to backfill the two impacted soil excavation areas on the east side of Harbor Brook.

2. Compaction: Remediation contractors utilized a backhoe to partially compact bank run gravel backfill material. The two-inch process stone backfill was self-compacting.

7.0 CONCLUSIONS

Removal/stabilization activities conducted during this project resulted in the removal of the contents of all identified USTs, two USTs, metal-laden dust piles beneath dust collectors, impacted soils, containers, residues, structures, asbestos-containing building materials, lead-based paint, and debris piles, and the stabilization/securing of openings and areas, at certain on-site locations. These activities reduced potential and actual threats to human health and the environment on the Factory H site.

8.0 LIMITATIONS

The purpose of this project was to conduct certain removal/stabilization activities deemed appropriate by AEI and DEP to minimize public exposure to and environmental risk from hazardous materials and conditions at the Factory H site. The removal/stabilization activities were conducted on a priority basis based upon the limited budget a DEP-controlled escrow account established for the project. Stabilization actions conducted to secure the site (e.g., fencing, locks, boarding up buildings, asbestos encapsulation, posting warning signs, etc.) are temporary in nature and are not permanent solutions for the remaining portions of the on-site buildings in poor or dilapidated condition, or for remaining impacted soils, debris, or building materials on the site. Remaining asbestos- and lead-containing building materials have not been completely encapsulated or removed and may over time fall inside and outside the buildings. Bank run

gravel backfill was only partially compacted and should not be considered structurally sound for any future construction.

9.0 REPORT PREPARER/SIGNATURE

This summary report has been prepared on behalf of MidState Medical Center by:

Advanced Environmental Interface, Inc.

John H. Szymanski, Field Engineer

Joseph A. Santovasi, CPG, LEP

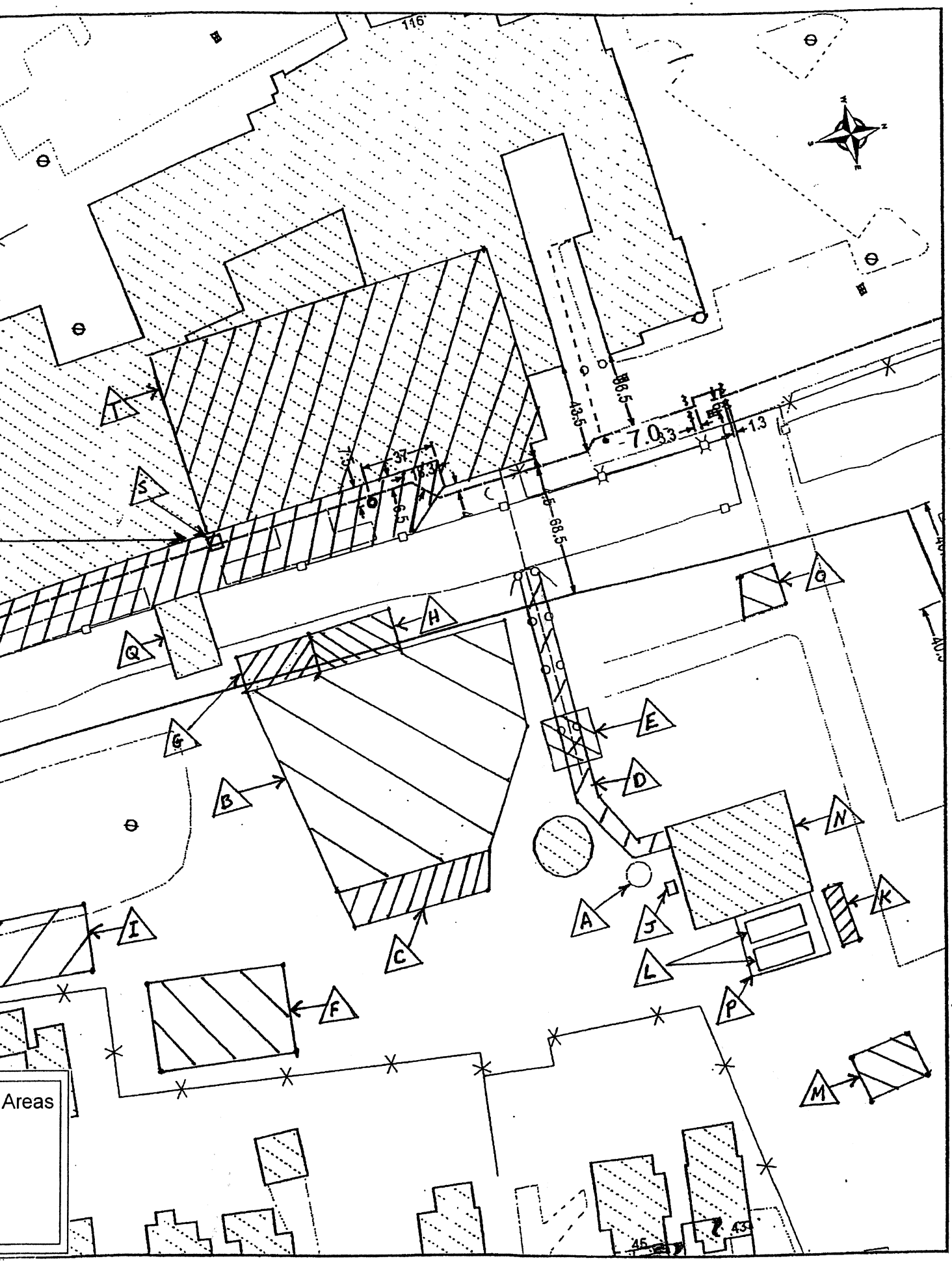
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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)			
	Residential	Industrial/ Commercial	GB	S-1 (W)	S-2 (W)	SW-3 (W)	SW-4 (W)
Depth Below Grade				(1')	(1')	(3.5')	(2')
Sampling Date				28-Jul-05	28-Jul-05	28-Jul-05	1-Aug-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)							
Acenaphthene	1,000	2,500	84	ND	ND	ND	ND
Acenaphthylene	1,000	2,500	84	ND	ND	ND	ND
Anthracene	1,000	2,500	400	ND	ND	ND	ND
Benzo[a]anthracene	**1**	7.8	**1**	ND	ND	ND	ND
Benzo[a]pyrene	1	1	1	ND	ND	ND	ND
Benzo[b]fluoranthene	**1**	7.8	**1**	ND	ND	ND	ND
Benzo[g,h,i]perylene	1,000	2,500	42	ND	ND	ND	ND
Benzo[k]fluoranthene	8.4	78	**1**	ND	ND	ND	ND
Chrysene	84	780	**1**	ND	ND	ND	ND
Dibenz[a,h]anthracene	1	1	1	ND	ND	ND	ND
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	ND	ND	ND	ND
Fluoranthene	1,000	2,500	56	ND	ND	ND	ND
Fluorene	1,000	2,500	56	ND	ND	ND	ND
Naphthalene	1,000	2,500	56	ND	ND	ND	ND
Phenanthrene	1,000	2,500	40	ND	ND	ND	ND
Pyrene	1,000	2,500	40	ND	ND	ND	ND
USEPA Method 8260B GC/MS	NA	NA	NA	ND	ND	ND	ND
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	ND	ND	ND	ND

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

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Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)			
	Residential	Industrial/ Commercial	GB	S-1 (W)	S-2 (W)	SW-3 (W)	SW-4 (W)
Depth Below Grade				(1')	(1')	(3.5')	(2')
Sampling Date				28-Jul-05	28-Jul-05	28-Jul-05	1-Aug-05
Mass/Total Metals							
Antimony	**27**	8,200	**0.06**	ND	ND	**40**	ND
Arsenic	**10**	**10**	NA	ND	ND	**40.4**	4.6
Barium	4,700	140,000	**10.0**	**15**	**17**	14	**58**
Cadmium	34	1,000	**0.1**	ND	**1.8**	**1.4**	**0.5**
Chromium (total)	NC	NC	**0.5**	**16.7**	**184**	**3.9**	**10.5**
Copper	**2,500**	**76,000**	NA	**61,700**	**78,700**	974	**23,600**
Lead	**500**	1,000	NA	50.8	102	**936**	303
Mercury	**20**	610	**0.02**	**0.05**	**0.25**	0.04	**0.18**
Nickel	**1,400**	**7,500**	NA	**15,600**	**1,540**	516	**6,410**
Silver	**340**	10,000	NA	33.6	187	57.1	286
Vanadium	470	14,000	**0.5**	**8.2**	7.2	**1.8**	**5.7**
Zinc	**20,000**	610,000	NA	11,700	**27,000**	1,100	5,070
SPLP Metals							
Lead	NA	NA	NA	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	ND	ND	ND	ND
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	**14,420**	**3,649**	ND	**12,629**

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	HS-A	HS-B	HS-C	HS-D	HS-E	HS-F
Depth Below Grade				(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	ND	ND	0.031	ND	ND	ND
Acenaphthylene	1,000	2,500	84	ND	ND	0.032	0.017	0.027	0.046
Anthracene	1,000	2,500	400	ND	0.280	0.174	0.036	0.064	0.048
Benzo[a]anthracene	**1**	7.8	**1**	ND	**1.560**	0.531	0.079	0.162	0.174
Benzo[a]pyrene	1	1	1	ND	0.540	0.248	0.016	0.081	0.064
Benzo[b]fluoranthene	**1**	7.8	**1**	ND	0.910	0.344	0.069	0.111	0.118
Benzo[g,h,i]perylene	1,000	2,500	42	ND	ND	0.227	ND	ND	0.096
Benzo[k]fluoranthene	8.4	78	**1**	ND	0.740	0.242	0.043	0.075	0.104
Chrysene	84	780	**1**	ND	**1.780**	0.645	0.074	0.168	0.191
Dibenz[a,h]anthracene	1	1	1	ND	ND	0.104	ND	ND	ND
7H-Dibenzo(c,g)carbozole	NC	NC	NC	ND	ND	ND	ND	ND	ND
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	ND	ND	0.215	ND	ND	0.091
Fluoranthene	1,000	2,500	56	0.360	2.18	0.871	0.130	0.306	0.281
Fluorene	1,000	2,500	56	ND	ND	0.035	ND	ND	ND
Naphthalene	1,000	2,500	56	ND	ND	0.104	0.162	0.048	0.028
Phenanthrene	1,000	2,500	40	ND	0.920	0.635	0.174	0.129	0.166
Pyrene	1,000	2,500	40	0.380	2.210	0.947	0.125	0.306	0.284
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	ND	ND	ND	ND	ND	**1.0**

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	HS-A	HS-B	HS-C	HS-D	HS-E	HS-F
Depth Below Grade				(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')	(0-0.5')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	ND	1.7	6.5	3.1	ND	ND
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	**40,000**	**137,000**	866	493	**32,200**	**45,500**
Lead	**500**	1,000	NA	195	36.5	142	120	386	89.4
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	**2,430**	**28,300**	200	86.6	803	**6,940**
Silver	**340**	10,000	NA	79.9	57.9	328	79.2	**472**	182
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	2,250	**27,600**	357	113	756	9,980
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	ND	1.8	ND	ND	2.3	2.3
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	**21,676**	**5,589**	300	264	**913**	**4,939**

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	HS-G	PX-GP-1	PX-GP-1	PX-GP-1	PX-GP-2	PX-GP-2
Depth Below Grade				(0-0.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	0.210	NT	0.042	NT	NT	NT
Acenaphthylene	1,000	2,500	84	ND	NT	0.014	NT	NT	NT
Anthracene	1,000	2,500	400	0.920	NT	0.158	NT	NT	NT
Benzo[a]anthracene	1	7.8	1	**2.490**	NT	0.176	NT	NT	NT
Benzo[a]pyrene	1	1	1	0.820	NT	0.089	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	1	**1.020**	NT	0.124	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	1.190	NT	0.101	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	1	**1.030**	NT	0.083	NT	NT	NT
Chrysene	84	780	1	**2.440**	NT	0.297	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	ND	NT	ND	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	ND	NT	0.059	NT	NT	NT
Indeno[1,2,3-cd]pyrene	1	7.8	1	0.900	NT	0.089	NT	NT	NT
Fluoranthene	1,000	2,500	56	3.800	NT	0.476	NT	NT	NT
Fluorene	1,000	2,500	56	ND	NT	0.047	NT	NT	NT
Naphthalene	1,000	2,500	56	0.240	NT	0.119	NT	NT	NT
Phenanthrene	1,000	2,500	40	2.980	NT	0.593	NT	NT	NT
Pyrene	1,000	2,500	40	3.850	NT	0.439	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	1	10	0.005	ND	NT	ND	NT	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
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Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	HS-G	PX-GP-1	PX-GP-1	PX-GP-1	PX-GP-2	PX-GP-2
Depth Below Grade				(0-0.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	ND	7.0	5.5	ND	2.9	5.8
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	**38,900**	389	576	391	471	2,340
Lead	**500**	1,000	NA	138	327	317	**924**	117	229
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	**4,810**	79.5	83.2	52.6	97.9	479
Silver	**340**	10,000	NA	128	15.5	11.7	4.0	15.6	77.2
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	5,720	189	147	783	102	437
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	ND	NT	ND	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	**34,539**	NT	347	NT	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-2	PX-GP-3	PX-GP-3	PX-GP-3	PX-GP-4	PX-GP-4
Depth Below Grade				(2.3-5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	0.019	NT	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	0.101	NT	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.225	NT	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	0.789	NT	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	0.250	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	NT	NT	0.275	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	0.272	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	0.277	NT	NT	NT
Chrysene	84	780	**1**	NT	NT	0.682	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	0.083	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	0.055	NT	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	0.312	NT	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.976	NT	NT	NT
Fluorene	1,000	2,500	56	NT	NT	0.069	NT	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.021	NT	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.647	NT	NT	NT
Pyrene	1,000	2,500	40	NT	NT	0.898	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND	NT	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-2	PX-GP-3	PX-GP-3	PX-GP-3	PX-GP-4	PX-GP-4
Depth Below Grade				(2.3-5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	6.7	**19.8**	**10.1**	1.8	9.4	8.5
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	**3,670**	117	151	70	**2,950**	2,220
Lead	**500**	1,000	NA	150	103	150	40.3	194	176
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	829	27	20.2	12.9	529	394
Silver	**340**	10,000	NA	31.5	5.0	4.4	ND	21.2	11
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	621	44.9	56.4	41.1	435	344
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	233	NT	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-4	PX-GP-5	PX-GP-5	PX-GP-5	PX-GP-6	PX-GP-6
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	ND	NT	0.158	ND	NT	NT
Acenaphthylene	1,000	2,500	84	0.610	NT	0.108	0.049	NT	NT
Anthracene	1,000	2,500	400	0.530	NT	0.415	0.091	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	**1.960**	NT	0.948	0.450	NT	NT
Benzo[a]pyrene	1	1	1	0.850	NT	0.361	0.157	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	**1.380**	NT	0.499	0.241	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	1.120	NT	0.493	0.183	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	**1.260**	NT	0.402	0.201	NT	NT
Chrysene	84	780	**1**	**2.430**	NT	**1.046**	0.604	NT	NT
Dibenz[a,h]anthracene	1	1	1	ND	NT	0.057	ND	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	ND	NT	0.198	ND	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	**1.230**	NT	0.445	0.208	NT	NT
Fluoranthene	1,000	2,500	56	3.770	NT	0.938	0.604	NT	NT
Fluorene	1,000	2,500	56	ND	NT	0.189	0.015	NT	NT
Naphthalene	1,000	2,500	56	0.340	NT	0.251	0.075	NT	NT
Phenanthrene	1,000	2,500	40	2.040	NT	1.157	0.158	NT	NT
Pyrene	1,000	2,500	40	3.600	NT	0.821	0.598	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	ND	NT	ND	ND	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-4	PX-GP-5	PX-GP-5	PX-GP-5	PX-GP-6	PX-GP-6
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	**14.6**	**14.2**	**45.4**	1.8	8.5	2.8
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	1,760	2,200	1,130	93.5	533	197
Lead	**500**	1,000	NA	109	190	146	104	53.3	88.2
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	412	862	438	38.3	91.1	101
Silver	**340**	10,000	NA	22	25.8	26.8	0.70	2.4	3.9
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	318	742	673	42.2	112	144
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	ND	NT	ND	ND	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	**893**	NT	**539**	**1,718**	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
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NT = Not tested.
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NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-6	PX-GP-7	PX-GP-7	PX-GP-7	PX-GP-8	PX-GP-8
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	0.042	ND	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	0.087	0.290	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.188	0.430	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	0.611	**2.020**	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	0.277	0.610	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	NT	NT	0.434	0.550	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	0.415	1.060	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	0.307	0.590	NT	NT
Chrysene	84	780	**1**	NT	NT	0.803	**3.230**	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	0.064	ND	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	0.053	ND	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	0.431	**1.130**	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.967	2.790	NT	NT
Fluorene	1,000	2,500	56	NT	NT	0.046	ND	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.154	0.490	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.571	0.840	NT	NT
Pyrene	1,000	2,500	40	NT	NT	1.051	3.080	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND	ND	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-6	PX-GP-7	PX-GP-7	PX-GP-7	PX-GP-8	PX-GP-8
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	2.8	1.3	2.5	2.8	1.4	6.1
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	1,060	417	759	238	149	799
Lead	**500**	1,000	NA	175	18.7	48	36.3	8.9	**541**
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	312	98	230	79.1	40.6	194
Silver	**340**	10,000	NA	17.4	3.8	1.9	ND	ND	23.5
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	288	104	202	116	58.7	237
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	ND	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	230	**532**	NT	NT

Notes:

mg/kg = milligrams per kilogram.
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NA = Not applicable.
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NT = Not tested.
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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-8	PX-GP-9	PX-GP-9	PX-GP-9	PX-GP-10	PX-GP-10
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	0.037	NT	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	0.047	NT	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.179	NT	NT	NT
Benzo[a]anthracene	1	7.8	1	NT	NT	0.238	NT	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	0.092	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	1	NT	NT	0.155	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	0.181	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	1	NT	NT	0.162	NT	NT	NT
Chrysene	84	780	1	NT	NT	0.392	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	ND	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	0.057	NT	NT	NT
Indeno[1,2,3-cd]pyrene	1	7.8	1	NT	NT	0.195	NT	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.570	NT	NT	NT
Fluorene	1,000	2,500	56	NT	NT	0.037	NT	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.055	NT	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.489	NT	NT	NT
Pyrene	1,000	2,500	40	NT	NT	0.552	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	1	10	0.005	NT	NT	ND	NT	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-8	PX-GP-9	PX-GP-9	PX-GP-9	PX-GP-10	PX-GP-10
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	2.9	1.5	**37.1**	**42.5**	1.0	4.7
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	84.9	**3,000**	**5,170**	**15,100**	516	**8,600**
Lead	**500**	1,000	NA	71.6	26.6	223	211	31.8	**559**
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	45.6	651	705	1,250	124	935
Silver	**340**	10,000	NA	1.7	10.7	26.4	34.7	4.0	112
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	81.7	492	581	1,660	145	643
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	**1,635**	NT	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
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ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-10	PX-GP-11	PX-GP-11	PX-GP-11	PX-GP-12	PX-GP-12
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	0.042	ND	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	0.030	ND	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.189	ND	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	0.217	ND	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	0.060	ND	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	NT	NT	0.100	ND	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	0.079	ND	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	0.082	ND	NT	NT
Chrysene	84	780	**1**	NT	NT	0.301	ND	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	ND	ND	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	ND	ND	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	0.073	ND	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.585	ND	NT	NT
Fluorene	1,000	2,500	56	NT	NT	0.089	ND	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.080	0.024	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.611	ND	NT	NT
Pyrene	1,000	2,500	40	NT	NT	0.624	ND	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND	ND	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-10	PX-GP-11	PX-GP-11	PX-GP-11	PX-GP-12	PX-GP-12
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	**11.1**	6.5	4.1	4.7	6.1	2.3
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	**7,200**	1,970	1,950	**8,830**	**2,790**	**5,450**
Lead	**500**	1,000	NA	470	42.6	35.7	39.7	497	46.7
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	1,150	355	422	**2,900**	389	**1,520**
Silver	**340**	10,000	NA	74.3	12.3	1.2	10.8	66.8	4.0
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	862	344	326	2,810	536	825
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	ND	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	**1,099**	**3,990**	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-12	PX-GP-13	PX-GP-13	PX-GP-13	PX-GP-14	PX-GP-14
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	ND	NT	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	ND	NT	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.260	NT	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	0.290	NT	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	ND	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	NT	NT	ND	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	ND	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	ND	NT	NT	NT
Chrysene	84	780	**1**	NT	NT	0.390	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	ND	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	ND	NT	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	ND	NT	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.780	NT	NT	NT
Fluorene	1,000	2,500	56	NT	NT	ND	NT	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.300	NT	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.400	NT	NT	NT
Pyrene	1,000	2,500	40	NT	NT	0.630	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND	NT	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-12	PX-GP-13	PX-GP-13	PX-GP-13	PX-GP-14	PX-GP-14
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	ND	ND	ND	ND	ND	ND
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	**42,300**	**2,900**	**2,520**	**2,850**	**2,670**	**4,250**
Lead	**500**	1,000	NA	64.1	186	194	295	433	180
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	**10,400**	620	608	732	510	950
Silver	**340**	10,000	NA	14.9	41.5	48.9	40.3	288	75
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	9,620	491	466	625	575	693
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	**1,362**	NT	NT	NT

Notes:

mg/kg = milligrams per kilogram.
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NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
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Table 1
Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria
Former Insilco Factory H Site
77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-14	PX-GP-15	PX-GP-15	PX-GP-15	PX-GP-16	PX-GP-16
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)									
Acenaphthene	1,000	2,500	84	NT	NT	0.013	ND	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	0.071	0.047	NT	NT
Anthracene	1,000	2,500	400	NT	NT	0.250	0.149	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	0.389	0.306	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	0.108	0.090	NT	NT
Benzo[b]fluoranthene	**1**	7.8	**1**	NT	NT	0.137	0.151	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	0.151	0.101	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	0.101	0.121	NT	NT
Chrysene	84	780	**1**	NT	NT	0.659	0.451	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	0.059	ND	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	ND	ND	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	0.109	0.132	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	0.791	0.585	NT	NT
Fluorene	1,000	2,500	56	NT	NT	0.043	0.020	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	0.132	0.115	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	0.543	0.281	NT	NT
Pyrene	1,000	2,500	40	NT	NT	0.743	0.511	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND	ND	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)					
	Residential	Industrial/ Commercial	GB	PX-GP-14	PX-GP-15	PX-GP-15	PX-GP-15	PX-GP-16	PX-GP-16
Depth Below Grade				(2-3.5')	(0-0.5')	(0.5-2')	(2-3.5')	(0-0.5')	(0.5-2')
Sampling Date				9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05	9-Sep-05
Mass/Total Metals									
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	ND	ND	5.7	ND	ND	1.0
Barium	4,700	140,000	**10.0**	NT	NT	NT	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT	NT	NT	NT
Copper	**2,500**	**76,000**	NA	2,230	**2,780**	1,760	**2,560**	622	1,040
Lead	**500**	1,000	NA	200	383	323	124	20.2	72
Mercury	**20**	610	**0.02**	NT	NT	NT	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	438	764	379	761	124	308
Silver	**340**	10,000	NA	20.7	273	22.6	27.9	85.3	133
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	520	777	381	582	201	317
SPLP Metals									
Lead	NA	NA	NA	NT	NT	NT	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	ND	ND	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	NT	NT	411	458	NT	NT

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
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NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)				
	Residential	Industrial/ Commercial	GB	WW-N-Wall	WW-S-Wall	UST-Bottom	UST-N-Wall	UST-S-Wall
Depth Below Grade				(11')	(11')	(4.5')	(4.5')	(4.5')
Sampling Date				14-Sep-05	14-Sep-05	21-Sep-05	21-Sep-05	21-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)								
Acenaphthene	1,000	2,500	84	ND	ND	NT	NT	NT
Acenaphthylene	1,000	2,500	84	ND	ND	NT	NT	NT
Anthracene	1,000	2,500	400	ND	ND	NT	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	0.537	0.156	NT	NT	NT
Benzo[a]pyrene	1	1	1	0.432	0.141	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	0.176	ND	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	ND	ND	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	0.171	ND	NT	NT	NT
Chrysene	84	780	**1**	0.446	0.149	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	ND	ND	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	ND	ND	NT	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	ND	ND	NT	NT	NT
Fluoranthene	1,000	2,500	56	0.734	0.233	NT	NT	NT
Fluorene	1,000	2,500	56	ND	ND	NT	NT	NT
Naphthalene	1,000	2,500	56	ND	ND	NT	NT	NT
Phenanthrene	1,000	2,500	40	0.177	ND	NT	NT	NT
Pyrene	1,000	2,500	40	0.779	0.258	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	ND	ND	ND	ND	ND
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	NT	NT	NT

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)				
	Residential	Industrial/ Commercial	GB	WW-N-Wall	WW-S-Wall	UST-Bottom	UST-N-Wall	UST-S-Wall
Depth Below Grade				(11')	(11')	(4.5')	(4.5')	(4.5')
Sampling Date				14-Sep-05	14-Sep-05	21-Sep-05	21-Sep-05	21-Sep-05
Mass/Total Metals								
Antimony	**27**	8,200	**0.06**	NT	NT	NT	NT	NT
Arsenic	**10**	**10**	NA	ND	1.8	NT	NT	NT
Barium	4,700	140,000	**10.0**	63	165	NT	NT	NT
Cadmium	34	1,000	**0.1**	ND	ND	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	15.3	17	NT	NT	NT
Copper	**2,500**	**76,000**	NA	101	117	NT	NT	NT
Lead	**500**	1,000	NA	48.5	22	NT	NT	NT
Mercury	**20**	610	**0.02**	0.49	0.05	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	23.1	32	NT	NT	NT
Silver	**340**	10,000	NA	3.5	4.5	NT	NT	NT
Vanadium	470	14,000	**0.5**	NT	NT	NT	NT	NT
Zinc	**20,000**	610,000	NA	58.8	58.7	NT	NT	NT
SPLP Metals								
Lead	NA	NA	NA	0.011	0.007	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	ND	ND	159	ND	ND

Notes:

mg/kg = milligrams per kilogram.
ppm = Parts per million (comparable to mg/kg).
NA = Not applicable.
NC = No criteria established.
ND = Not detected above the laboratory minimum detection limit.
NT = Not tested.
☐ = Concentration exceeds associated criterion.

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)		
	Residential	Industrial/ Commercial	GB	UST-E-Wall	UST-W-Wall	TP-S-1
Depth Below Grade				(4.5')	(4.5')	(2')
Sampling Date				21-Sep-05	21-Sep-05	30-Sep-05
USEPA Method 8270C Polynuclear Aromatic Hydrocarbons (PAHs)						
Acenaphthene	1,000	2,500	84	NT	NT	NT
Acenaphthylene	1,000	2,500	84	NT	NT	NT
Anthracene	1,000	2,500	400	NT	NT	NT
Benzo[a]anthracene	**1**	7.8	**1**	NT	NT	NT
Benzo[a]pyrene	1	1	1	NT	NT	NT
Benzo[b]fluoranthene	1	7.8	**1**	NT	NT	NT
Benzo[g,h,i]perylene	1,000	2,500	42	NT	NT	NT
Benzo[k]fluoranthene	8.4	78	**1**	NT	NT	NT
Chrysene	84	780	**1**	NT	NT	NT
Dibenz[a,h]anthracene	1	1	1	NT	NT	NT
7H-Dibenzo(c,g)carbozole	NC	NC	NC	NT	NT	NT
Indeno[1,2,3-cd]pyrene	**1**	7.8	**1**	NT	NT	NT
Fluoranthene	1,000	2,500	56	NT	NT	NT
Fluorene	1,000	2,500	56	NT	NT	NT
Naphthalene	1,000	2,500	56	NT	NT	NT
Phenanthrene	1,000	2,500	40	NT	NT	NT
Pyrene	1,000	2,500	40	NT	NT	NT
USEPA Method 8260B GC/MS	NA	NA	NA	ND	ND	NT
USEPA Method 8082 Polychlorinated Biphenyls (PCBs)	**1**	10	**0.005**	NT	NT	ND

NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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Table 1

Comparison of Soil Sample Analyte Concentrations to DEP Remediation Standard Regulations Numerical Criteria

Former Insilco Factory H Site

77 Cooper Street, Meriden, Connecticut

Analyte	Direct Exposure Criteria for Soil (mg/kg)		Pollutant Mobility Criteria for Soil (mg/kg)	Soil Sample Concentrations (ppm)		
	Residential	Industrial/ Commercial	GB	UST-E-Wall	UST-W-Wall	TP-S-1
Depth Below Grade				(4.5')	(4.5')	(2')
Sampling Date				21-Sep-05	21-Sep-05	30-Sep-05
Mass/Total Metals						
Antimony	**27**	8,200	**0.06**	NT	NT	NT
Arsenic	**10**	**10**	NA	NT	NT	NT
Barium	4,700	140,000	**10.0**	NT	NT	NT
Cadmium	34	1,000	**0.1**	NT	NT	NT
Chromium (total)	NC	NC	**0.5**	NT	NT	NT
Copper	**2,500**	**76,000**	NA	NT	NT	NT
Lead	**500**	1,000	NA	NT	NT	75.2
Mercury	**20**	610	**0.02**	NT	NT	NT
Nickel	**1,400**	**7,500**	NA	NT	NT	NT
Silver	**340**	10,000	NA	NT	NT	NT
Vanadium	470	14,000	**0.5**	NT	NT	NT
Zinc	**20,000**	610,000	NA	NT	NT	NT
SPLP Metals						
Lead	NA	NA	NA	NT	NT	NT
USEPA Method 335.2 Total Cyanide	1,400	41,000	NA	NT	NT	NT
Connecticut Extractable Total Petroleum Hydrocarbons (ETPH)	**500**	**2,500**	**2,500**	67	ND	39,900

Notes:

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NOTE: Soils at Sample Locations S-1 and S-2 were removed; Depths at locations PX-GP and HS begin at 2' below grade (i.e., at bottom of excavation now backfilled)

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FACTORY H SOIL SAMPLES

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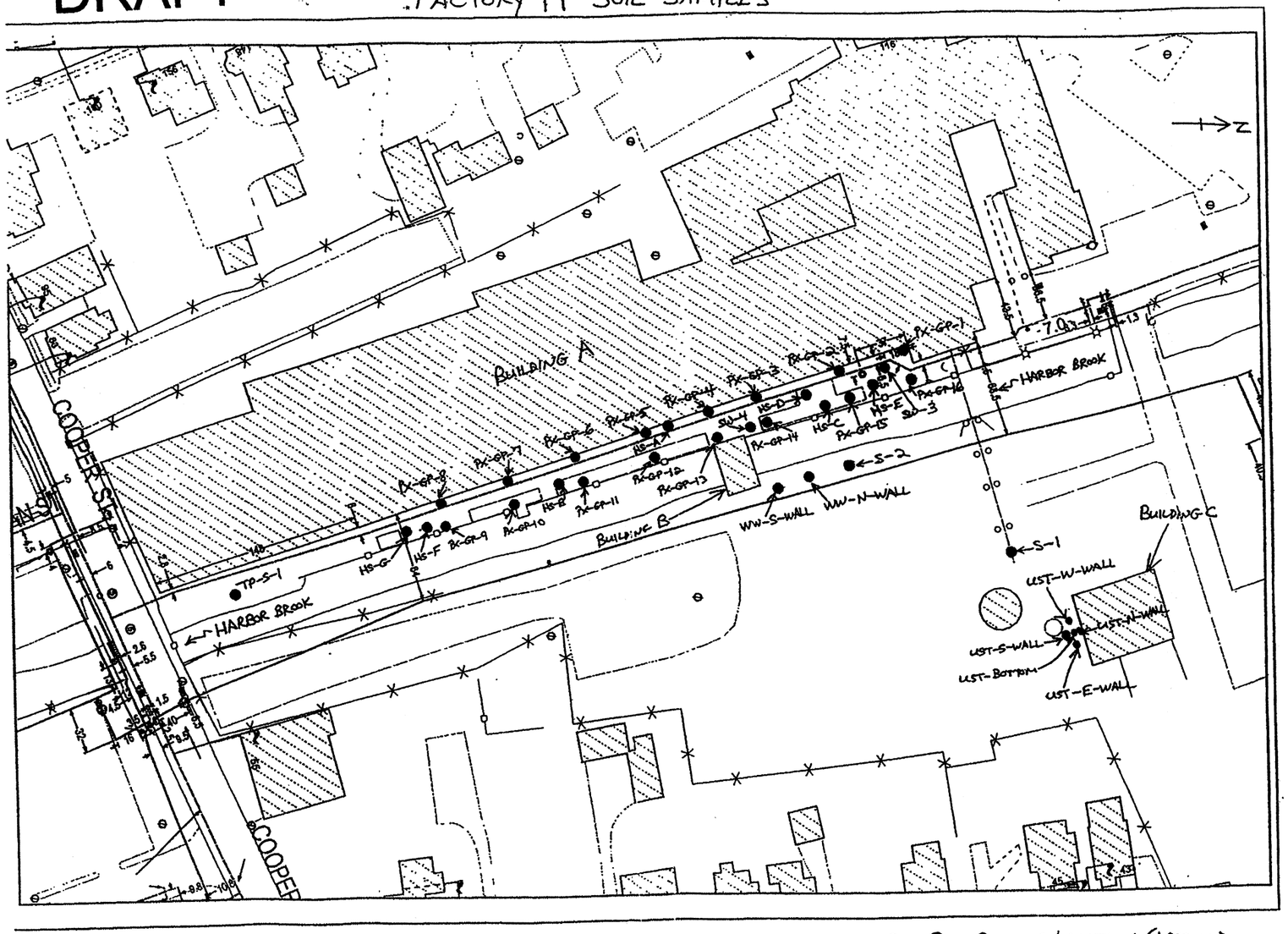

● = SOIL SAMPLE LOCATION (APPROX.)

GZA

SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE EVALUATION INTERNATIONAL SILVER COMPANY, FACTORY H SITE MERIDEN, CONNECTICUT

PREPARED FOR:
AMS Advisory Services, Inc.
Lafayette Square
350 Fairfield Avenue
Bridgeport, CT 06604

PAGE 12
Dry well ?

PREPARED BY
GZA GeoEnvironmental, Inc.
27 Naek Road
Vernon, CT 06066

File No. 42381
June 2000

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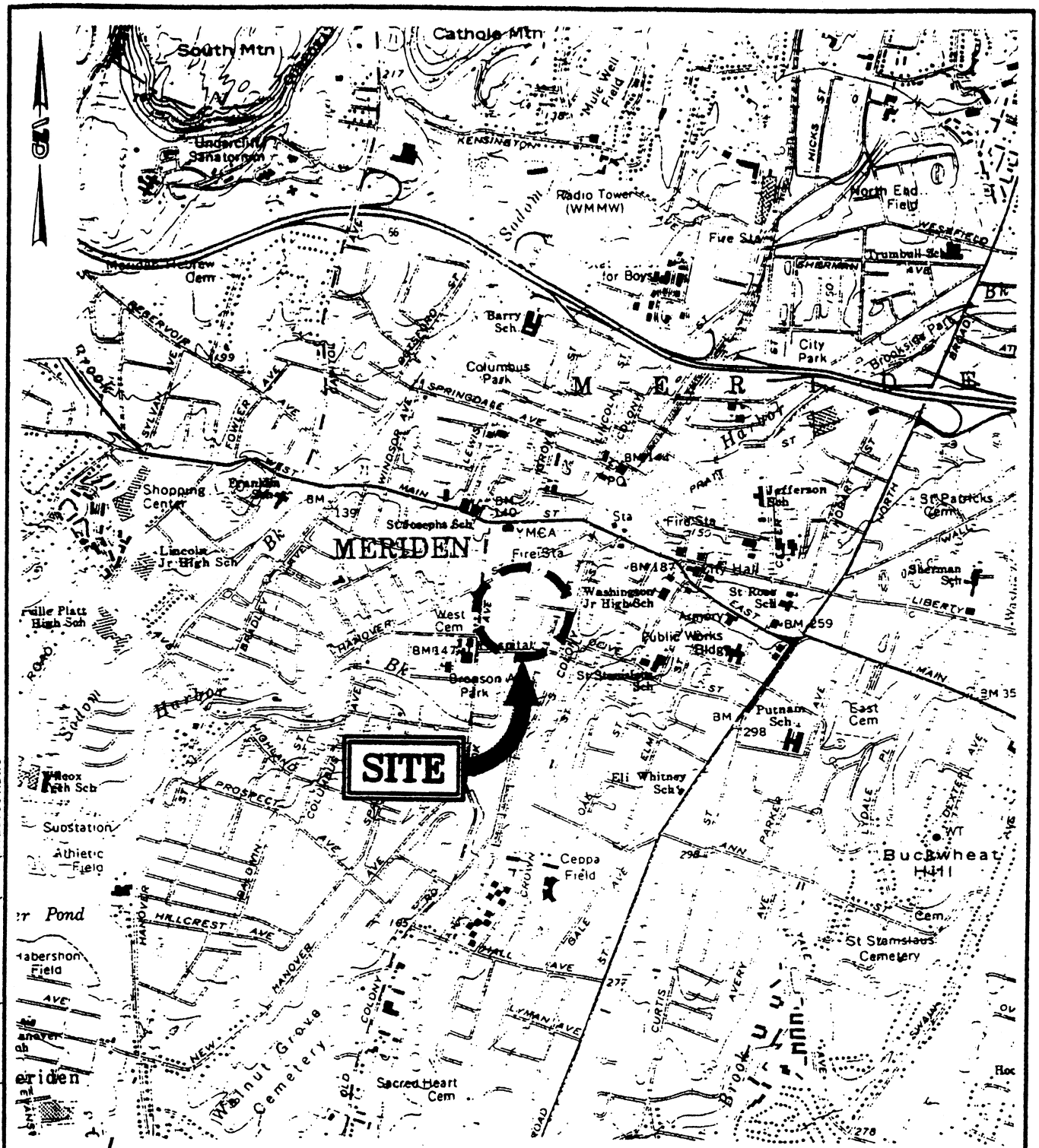

1"=2000'

0 1000' 2000' 4000'

SOURCE: U.S.G.S. MERIDEN, CT QUADRANGLE MAP (1992)

GZA	INSILCO MERIDEN, CONNECTICUT	LOCUS PLAN APRIL 5, 2000 FIGURE NO. 1

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GZA
GeoEnvironmental, Inc.

Engineers and Scientists

June 15, 2000
File No. 42381

AMS Advisory Services, Inc.
Lafayette Square
350 Fairfield Avenue
Bridgeport, CT 06604

Attention: Lawrence Kenney

Re: Supplemental Phase II Environmental Site Evaluation
International Silver Company, Factory H Site
Meriden, Connecticut

27 Naek Road
Vernon
Connecticut 06066-3965
860-875-7655
FAX 860-872-2416
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Dear Mr. Kenney:

GZA GeoEnvironmental, Inc. (GZA), is pleased to present the results of our Supplemental Environmental Investigation of the above-noted property. The purpose of this study was to supplement previous environmental site assessments by others and to preliminarily evaluate the environmental costs associated with redeveloping the site for light industrial use, including demolition of existing structures. In particular, a survey of Hazardous Building Materials (HBMs) in the existing site structures was performed as part of this study. This report summarizes our findings and conclusions.

We note that additional environmental activities will be required prior to redeveloping the property. These activities include additional site investigations to: 1) determine the presence or absence of contamination at certain potential source areas of contamination, as well as to delineate the extent of contamination at other release areas where the presence of contamination has been previously established; and 2) completion of a Remedial Action Plan.

Please call the undersigned if you have any questions. We appreciate the opportunity to assist you with this project.

A Subsidiary of GZA GeoEnvironmental Technologies, Inc.

Very truly yours,

GZA GEOENVIRONMENTAL, INC.

Daniel B. Wisialowski, P.E.
Project Manager

Robert M. Sullivan, P.E.
Consultant/Reviewer

Daniel C. Stapleton, P.E., LEP
Associate Principal

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An Equal Opportunity Employer M/F/V/H

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1.00 INTRODUCTION

In accordance with our contract dated January 20, 2000, GZA GeoEnvironmental, Inc., (GZA) has completed a Supplemental Phase II Environmental Site Evaluation of the International Silver Company, Factory H property located in Meriden, Connecticut (Site). The Site has a long history of industrial use and was formerly used for the manufacture of flatware, cutlery, metal finishings and guns. This study included a hazardous building material (HBM) survey, review of certain environmental data collected previously by others, and limited additional investigation of soil and groundwater contamination. The purpose of this study was to preliminarily evaluate environmental costs associated with property redevelopment, and to develop additional environmental data (within the limits of the project budget) for use in the future preparation of a Remedial Action Plan (RAP) for the property. The most significant component of this study was the completion of the HBM survey. Abatement of HBMs is expected to represent a significant redevelopment cost. Previously collected data was inadequate to estimate the cost.

As discussed in detail in this report, additional environmental activities will be required prior to redeveloping the property, likely including: 1) additional site investigation; 2) completion and submittal of the RAP; 3) preparation of construction plans and specifications detailing the mitigation measures presented in the RAP; 4) execution of the RAP in accordance with the plans and specifications; 5) application of Environmental Land Use Restrictions; and 6) verification by a Licensed Environmental Professional (LEP) or the Department of Environmental Protection (DEP) that the Site is in compliance with Connecticut's Remediation Standard Regulations (RSRs).

This report presents the results of our study, including: 1) a description of observed HBMs; 2) a summary of potential contamination source areas and subsurface conditions observed by GZA and others; and 3) a discussion of our preliminary estimate of environmental redevelopment costs. Figure 1 presents a Site Locus. Figure 2 presents a Site Plan, including identification of potential sources areas of contamination (PSAs). Table 1 presents the results of soil and groundwater testing performed by GZA. Table 2 presents our preliminary estimate of premium environmental redevelopment costs. A work plan, detailing recommended environmental site investigation tasks and costs is presented under separate cover.

This report is subject to the limitations presented in Appendix A.

1.10 EXISTING SITE CONDITION

The 7.2-acre property is bisected by Harbor Brook, which flows north to south through the property. Three buildings are currently present on the Site, including an approximately 76,000 square feet (s.f.) four-story brick building (Building A; located west of Harbor Brook); a 900 s.f. two-story, brick, former transformer/electrical building (Building B; located east of Harbor Brook); and an approximately 3,600 s.f., two-story, brick, former

power plant and smokestack (Building C; located east of Harbor Brook). Other structures currently present on the Site include an inactive water tower and 19 cyclone dust collectors. Several aboveground and underground storage tanks are also present.

Building A covers almost the entire portion of the property located west of Harbor Brook. The portion of the property east of Harbor Brook is mostly open. Existing grades west of the brook are at or near elevation 120. Grades east of the brook are also generally at elevation 120, sloping to about elevation 110 at the brook. Areas of fill, including soil, miscellaneous fill and construction debris, are present in portions of the property east of Harbor Brook. The majority of the property is located within the 100-year flood elevation (elevation 122 at the southern portion of the property increasing to about elevation 122.5 at the northern portion of the property).

Groundwater at the property as well as the regional area located downgradient of the Site is classified by the Department of Environmental Protection (DEP) as GB, indicating that it is not suitable as a potable water supply. Harbor Brook is a Class B Inland Surface Water, with a designated use for recreation, fish and wildlife habitat, agriculture and industrial supply and other legitimate uses including navigation.

1.20 PROPOSED DEVELOPMENT

The redevelopment alternative currently being considered includes demolition of the existing buildings and structures and redevelopment of the property for light industrial use, with two to three new buildings. Redevelopment may include acquisition of additional property east of the Site. We understand the Town and the Army Corps of Engineers are also considering using the western portion of the Site as part of a municipal flood control program including the demolition of Building A and the creation of flood storage capacity by excavating the portion of the property west of Harbor Brook to about elevation 112.

1.30 PREVIOUS ENVIRONMENTAL SITE INVESTIGATIONS

Previous environmental investigations of the Site have been performed, resulting in the following documents:

- HRP Associates, Inc., *Site Assessment Report*, 21 June 1988.
- Advanced Environmental Interface, Inc., *Assessment of Site Environmental Conditions Report*, 24 January 1990.
- ICF Kaiser Engineers, Inc., *Underground Storage Tank Sampling Report*, 17 December 1990.
- Roy F. Weston, Inc., *Removal Program Preliminary Assessment/Site Investigation Report*, 22 December 1997.

- Roy F. Weston, Inc., *International Silver Co., Factory H, Brownfields Targeted Site Assessment Final Report*, 8 September 1999.

- Milone & MacBroom, Inc., *Harbor Brook Flood Control Study*, 28 May 1999.

- Roy F. Weston, Inc., *Cleanup Summary Memorandum for the International Silver Brownfields Targeted Site Assessment*, 23 August 1999.

The previous investigations identified potential source areas of contamination (e.g. underground storage tanks) and included: 1) subsurface investigations, collection and analyses of soil, sediment, groundwater and surface water, and soil gas surveys; 2) limited sampling for asbestos; and 3) limited sampling of existing tanks and 55-gallon drums.

The results of these investigations (except the Milone & MacBroom test results) are summarized in the 1999 Weston report. As presented in this report, approximately 25 known or potential sources of soil and/or groundwater contamination have been identified, including underground storage tanks, above-ground storage tanks, 55-gallon drums, debris and fill piles, baghouse dust piles, stained concrete and soil surfaces, and an extensive area of soil and groundwater contamination. Most of these areas have not yet been fully investigated or characterized.

The results of the previous investigations are discussed in more detail in section 4.00 of this report. Environmental investigations have also been performed at the abutting Veterans Memorial Medical Center. However, we were not successful in obtaining data from those investigations.

2.00 SCOPE OF WORK

GZA performed the following scope of work as part of this study:

Task 1: Hazardous Building Material Surveys

GZA retained EnviroMed, Inc., of New Haven, Connecticut to review available asbestos survey data and perform HBM surveys of the three on-site buildings, including identification of suspect HBMs and estimation of the approximate quantities and abatement costs of these materials.

Task 2: Work Plan and Additional Site Investigation

GZA reviewed the site conditions and environmental data collected previously by others, relative to Connecticut's Remediation Standard Regulations (RSRs). Specifically, GZA reviewed the information presented in the 1999 Weston report and the data collected by Milone & MacBroom. Based on this review, GZA prepared a preliminary scope of work and cost to complete supplemental investigations (presented under separate cover) that will

be necessary to prepare the RAP, evaluate and/or demonstrate compliance with the RSRs, and prepare construction plans and specifications.

Within the funds available for this phase of work, GZA also completed limited additional site investigation, including:

- a site reconnaissance to observe potential source areas of contamination (identified by others during previous site investigations) that may result in premium environmental site development costs; and

- sampling and analyses of: 1) groundwater from an existing site monitoring well; and 2) three shallow soil samples. The groundwater sample was collected using low flow sampling techniques from one of three monitoring wells (MW-3) located within the southern portion of Building A. These wells were installed by Milone & MacBroom, Inc. as part of the Harbor Brook Flood Control Project; we understand that groundwater was never sampled. Limited environmental data is available within Building A. The rationale for the well locations is unknown; however it appears that this is the most easily accessed portion of the building. The groundwater samples were analyzed for total RCRA 8 metals and aromatic and halogenated volatile organic compounds (VOCs). GZA also collected three shallow (0 to 2 feet) soil samples in the vicinity of the dust collectors and a former transformer pad in order to better characterize soil quality at these locations. The soil samples were analyzed for RCRA 8 metals and polychlorinated biphenyls (PCBs).

The results of GZA's sampling program are presented in Table 1.

As noted above, additional site investigation is required; however, the budget for this study did not allow for more investigation to be completed at this time.

Task 3: Estimate of Environmental Costs

Based on the results of Tasks 1 and 2, GZA identified key environmental redevelopment issues and preliminarily estimated environmental costs associated with redevelopment of the property for light industrial reuse.

3.00 RESULTS OF THE HAZARDOUS BUILDING MATERIAL SURVEY

GZA's subcontractor, EnviroMed Services, Inc., performed an inspection of the three on-site buildings to identify the presence of asbestos, lead, and other hazardous materials. If identified at concentrations exceeding acceptable disposal criteria for construction and demolition waste (municipal solid waste), these materials will require abatement prior to building demolition and special disposal requirements.

Based on visual observations made by a state-licensed asbestos inspector, representative samples of materials suspected of containing asbestos were analyzed for asbestos content at EnviroMed's accredited asbestos laboratory. The following asbestos-containing materials were identified in Building A: pipe insulation, elbow and fitting insulation, tank insulation, floor tile and mastic, transite, built-up roofing materials, flashing cement, and window caulk. The following asbestos containing materials were identified in Building B: pipe and fitting insulation, elbow and fitting insulation, built-up roofing (assumed) and flashing cement (assumed). The following asbestos containing materials were identified in Building C: pipe and fitting insulation, rope gasket material, tank insulation, boiler burner caulk, breaching insulation, boiler insulation, built-up roofing, flashing cement, oil tank surfacing, and window glazing. It is noted that fragments and pieces of asbestos containing materials are located on the floor surfaces throughout Buildings A and C.

With regard to possible lead contamination, a direct read spectrum analyzer (x-ray fluorescence analysis or XRF) was used to analyze painted surfaces for the presence of lead at toxic levels, as defined by the Connecticut Lead Regulations. Representative samples of building materials that exceeded the toxic level criteria were sampled and analyzed for lead using the toxicity characteristic leaching procedure (TCLP). The following materials were identified in Building A as having lead TCLP levels requiring disposal as hazardous lead waste: painted wood windows, doors and trim; and painted brick walls. Materials in Buildings B and C were not identified as containing hazardous lead waste.

The following regulated or hazardous materials were also identified in Building A: fluorescent lighting fixture ballasts (potential for PCBs or diethyl hexyl phthalate [DEHP]) fluorescent lamp bulbs, several drums, possible oil residue in a sump pump, residual oil staining on the floor, mercury switches, paint containers, transformers (potential PCBs), dust collector residue, pails of roofing cement, possible corrosive and exhaust residues, and black ash. Fluorescent fixtures (potential PCBs, DEHP, and mercury) were identified in Building B. The following regulated or hazardous materials were also identified in Building C: oil pump, lines, and staining; gas/oil fired furnaces; and fluorescent fixtures (potential PCBs, DEHP and mercury).

Details of the HBM survey are presented in Appendix B. In addition to the identified HBMs, building surfaces impacted by releases of hazardous substances (i.e. PCBs from transformer releases) may be present. The potential for this impact should be investigated prior to building demolition.

Abatement costs are discussed later in this report.

4.00 SUBSURFACE CONDITIONS

4.10 GEOLOGY AND GEOHYDROLOGY

The following briefly discusses the geology and geohydrology at the Site to provide background relative to fate and transport of known or potential contamination at the Site.

4.10.1 Geology

Review of published geologic information for the Meriden Quadrangle indicates that the Site is underlain by stratified drift deposits, generally consisting of sand, silty sand and fine gravel. The stratified drift deposits are underlain by New Haven Arkose bedrock. Regional bedrock structure indicates inclined bedding and stratigraphy, dipping downward from the northwest to the southeast. The "Contour Map of the Bedrock Surface, Meriden Quadrangle; U.S. Department of the Interior Geological Survey; 1976" indicates that the Site is located in a bedrock trough with the elevation of the bedrock surface dipping from the southeast to the northwest. The top of bedrock (relative to Mean Sea Level) at the eastern portion of the Site is indicated to be approximately elevation 75. At the western portion of the Site, the top of bedrock is indicated to be at elevation 50 or lower.

Review of test boring logs prepared by Weston indicate that overburden materials at the Site consist of the following strata:

- up to approximately 7 feet of fill was identified in the logs for borings MW-8 and MW-10. The fill consisted of sand, silt and gravel. A thin layer of coal slag and cinders was noted in MW-10.

- granular soil was observed beneath the fill or ground surface in all of the test borings, extending to the top of bedrock. The soil was predominantly described as fine to medium sand or silty sand.

- a clayey silt layer was observed from a depth of approximately 10 feet to about 30 feet in boring MW-13.

Three Weston borings were advanced to drilling refusal on bedrock, which was encountered at depths of 46 feet (MW-14), 47.5 feet (MW-12) and 63 feet (MW-13).

4.10.2 Geohydrology

Weston completed a groundwater elevation survey for the portion of the Site located east of Harbor Brook. This survey indicates that overburden groundwater east of Harbor Brook flows in a west-southwest direction, towards the brook, with a flow gradient of approximately 0.006.

Groundwater flow direction west of Harbor Brook has not been established. However, based on the relatively flat ground surface and the proximity of Harbor Brook, it is likely that shallow groundwater at this portion of the property flows in an easterly direction, towards Harbor Brook.

Groundwater was typically encountered at depths of 5 to 10 feet below existing ground surface.

Regionally, overburden groundwater from the Site is expected to flow preferentially to the west-southwest along the narrow band of valley train stratified drift deposits, likely discharging to Hanover Pond, located approximately one mile southwest of the Site.

4.20 POTENTIAL AND KNOWN SOURCE AREAS

Numerous potential and known source areas (PSAs) of soil and groundwater contamination have been identified at the Site previously by others. These areas are indicated on Figure 2. Some, but not all, of these areas have been investigated for the presence or absence of contamination. The following, based principally on our review of the 1999 Weston report, briefly discusses each of these areas. This discussion is presented to provide background for our preliminary estimate of environmental redevelopment costs.

4.20.1 Two 1 20,000-Gallon USTs (PSA-1)

Two 20,000-gallon storage tanks are located east of Building C. The tanks have been identified as underground storage tanks in previous site investigation reports. Reportedly, testing by ICF Kaiser Engineers, Inc. (ICF) identified the contents of the tanks as diesel fuel. Constituents of concern with diesel fuel include total petroleum hydrocarbons (TPH) and aromatic VOCs. The tanks were also reportedly pumped out (circa 1990). Discharges from the tanks could potentially have resulted in localized soil contamination, light non-aqueous phase liquids (NAPL) and groundwater contamination. Groundwater contamination would be expected to migrate with groundwater flow towards Harbor Brook. Due to the distance of the tanks from Harbor Brook (200 feet) and the relatively flat groundwater gradient observed at the Site, some natural attenuation of a plume prior to discharge to Harbor Brook would be expected.

No subsurface investigations have been performed at the tank locations to investigate potential releases from the tanks and to determine the presence or absence of contamination. Several subsurface investigations have been performed in the vicinity of the tanks. Findings of these investigations include the following:

- a soil gas survey was performed near the tanks, with soil gas extraction points located north and northeast of the tanks. Low levels of aromatic VOCs, including benzene, toluene and xylenes, were detected in soil gas points located next to the tanks (Weston survey points 1+A50 and 1+A75; see Figure 2).

- hydrocarbon soil staining was observed in a sample collected at the groundwater interface from test boring MW-10 located approximately 20 to 40 feet east [upgradient] of the tanks. Elevated levels of TPH were detected in this soil sample. However, neither aromatic VOCs nor TPH were detected in groundwater collected from this shallow monitoring well.

- neither aromatic VOCs nor TPH were detected in groundwater collected from either a shallow overburden monitoring well (MW-2) or a deep overburden monitoring well (MW-13) located approximately 160 feet west-southwest (downgradient) of the tanks.

Based on the observed soil gas data, it appears that a release of petroleum hydrocarbons has occurred in the vicinity of the tanks, although the tanks have not been confirmed as the source of the observed contamination. Groundwater contamination was not observed in the existing wells; however, no wells have been installed immediately downgradient of the tanks.

4.20.2 One 1,000-Gallon UST (PSA-2)

A 1,000 gallon UST is present at the southeast corner of Building A, adjacent to Harbor Brook. Reportedly, testing by ICF identified the tank contents as kerosene. The tank contents were also reportedly pumped out (circa 1990). Constituents of concern associated with kerosene include aromatic VOCs. Discharges from this tank could result in localized soil contamination, NAPL and groundwater contamination. Due to the proximity of the tank to Harbor Brook, we expect that contaminated groundwater would discharge to Harbor Brook.

No subsurface explorations have been performed at the tank location.

4.20.3 One 10,000-Gallon UST (PSA-3)

A 10,000-gallon UST is located adjacent to and east of Harbor Brook, north of Building B. The tanks were reportedly used for the storage of metal finishing rinse and wastewater. The tank contents, which were tested by Advanced Environmental Interface (AEI) (1990), reportedly contained silver and lead (unknown quantities), and were slightly alkaline. It is not known if the contents of the tank were pumped out. Constituents of concern associated with the wastewater likely include metals and aromatic and halogenated VOCs. Discharge from this tank would likely result in localized areas of soil contamination, and groundwater contamination. Due to the proximity of the tank to Harbor Brook, it is expected that contaminated groundwater would discharge to Harbor Brook.

No subsurface investigations have been performed at the tank location.

4.20.4 UST - South of Building C (PSA-4)

A UST of unknown size is reportedly located south of Building C. ICF identified the contents of the tank as gasoline. Reportedly, the tank was pumped out (circa 1990). Constituents concern associated with gasoline include lead, MTBE and aromatic VOCs.

Discharges from this tank could potentially result in localized soil contamination, light NAPL and groundwater contamination. Similar to the nearby 20,000-gallon diesel fuel tanks, groundwater contamination would be expected to migrate towards Harbor Brook, with some natural attenuation of a groundwater plume.

No subsurface investigations have been performed at or downgradient of the tank.

4.20.5 USTs - Southeast of Building A (PSA-5)

Additional USTs, of unknown size and content, are reportedly located southeast of Building A. The presence of these tanks has not been confirmed.

Due to the proximity of these tanks to Harbor Brook, discharges from these tanks would likely discharge to Harbor Brook.

No subsurface explorations have been performed at the location of these tanks.

4.20.6 USTs - Northeast Side of Building A (PSA-6)

Five fill pipes were observed along the northern end of the east exterior wall of Building A, indicating the possible presence of USTs. The presence of USTs at these locations has not been confirmed.

A soil gas survey was performed by Weston in the general location of the fill pipes. The aromatic hydrocarbons tested (benzene and toluene) were not detected or detected only at trace levels. Elevated concentrations of halogenated hydrocarbons (trichloroethene and tetrachloroethene) were detected, with the highest concentration at soil gas extraction point 5+100. These constituents appear to be widespread in groundwater throughout the Site; their presence in soil gas is as such, not necessarily indicative of a UST release. However, the fact that significantly greater concentrations of these constituents were detected at one location indicates the likelihood of a release at or near this location. Activities at Building A likely utilized substances containing those constituents.

Due to the proximity of these tanks to Harbor Brook, discharges from these tanks would likely discharge to Harbor Brook.

No additional subsurface investigations were performed in the vicinity of the fill pipes.

4.20.7 Two 200-Gallon ASTs (PSA-7)

Two, 200-gallon ASTs are present within Building C. The contents of these tanks are unknown. No indications of a release to the floor, or soil and groundwater were observed in vicinity of these ASTs. Releases from these tanks, for the most part, likely be contained by the existing concrete slab.

No subsurface investigations have been performed at the tank locations.

4.20.8 One 1,500-Gallon AST (PSA-8)

One, 1,500-gallon AST is present within Building C. The contents of the tank are unknown. No indications of the release to the floor, or soil and groundwater were observed in the vicinity of this AST. Releases from this tank would, for the most part, likely be contained by the existing concrete slab.

No subsurface investigations have been performed at the tank location.

4.20.9 Two 300-Gallon ASTs (PSA-9)

Two, 300-gallon ASTs were observed within Building A. The contents of these tanks are unknown, however they appeared to be water tanks. No indications of a release to the floor, or soil and groundwater were observed in the vicinity of these ASTs. Release from these tanks would likely be contained by the existing concrete slab.

No subsurface investigations have been performed at the tank locations.

4.20.10 One 150,000-Gallon Water Tower (PSA-10)

An inactive water tower is located south of Building C. Assuming the historical use of this tank was for storage of clean water, the presence of this tank is not considered by GZA to be of environmental concern.

No subsurface investigations have been performed at the location of the water tower.

4.20.11 Several 55-Gallon Drums (PSA-11)

Four empty drums and 7 partially-filled drums were observed previously by others outside the western wall of Building A, and within the southwest portion of Building A. The contents of four drums (the locations of which drums were tested was not indicated in the Weston report) were tested by AEI. One drum contained sludge with ammonia, iron and zinc. Another drum contained metals contaminated waste oil. The third drum contained metal grinding dust. The fourth drum contained lubricating grease. The drums

outside of Building A were not observed by GZA during a recent site reconnaissance. Two, partially filled drums were observed within Building A. Constituents of concern associated with the documented drum contents would include TPH, aromatic and halogenated (typically chlorinated solvent and degreasing compounds) VOCs, metals and PCBs.

A soil gas survey was completed adjacent to the western exterior wall of Building A, in the vicinity of the exterior drums identified previously by others. Low levels of halogenated VOCs (trichloroethene and tetrachloroethene) were detected in soil gas. These constituents are widespread in groundwater across the Site; therefore, their presence in soil gas at this location is not necessarily an indication of releases from the drums. No other subsurface investigations were performed at the drum locations.

4.20.12 Discharge Pipes (PSA-12)

Several pipes, formerly used to discharge wastewater to Harbor Brook from activities within Building A, were observed. Historical discharges from these pipes is of environmental concern if they resulted in significant residual contamination in sediment or to surfaces that are accessible to direct exposure. To evaluate residual contamination, surface water samples were collected and analyzed by HRP and Weston, and sediment surface water and wipe samples (collected on stained areas of the existing stone river wall) were collected and analyzed by Weston. The results of the analyses are presented in Weston's 1999 report.

Three wipe samples were collected and analyzed for PCBs, Priority Pollutant metals, and cyanide (constituents of concern relative to anticipated historical wastewater discharges from Building A). PCBs and cyanide were not detected. Elevated levels of copper, lead, nickel and zinc were detected in the surface staining. Significant remediation of the staining is not expected to be required.

Three surface water samples were collected by HRP (1988) and analyzed for aromatic and halogenated VOCs, and RCRA 8 metals plus copper and nickel. The results of the metals analyses were not presented in the Weston report. Trichloroethene was detected at concentrations of 1 ppb, 2 ppb and 10 ppb at locations upstream, on-Site and downstream of the Site, respectively.

Three surface water samples were also collected by Weston (1999) and analyzed for aromatic and halogenated VOCs, Priority Pollutant metals and cyanide. Metals and cyanide were not detected. Low levels of the halogenated hydrocarbons trichlorethene and cis, 1,2-dichloroethene were detected at each of the locations at concentrations ranging from about 2 to 5 ppb.

4.20.14 Dust Piles and Contaminated Soil Adjacent to Building A (PSA-14)

A series of 19 cyclone-shaped dust filters are located along the eastern perimeter of Building A. Dust piles are present beneath the filters. One composite sample from the dust piles was collected by HRP (1988) and analyzed for aromatic and halogenated hydrocarbons, Extraction Procedure Toxicity metals plus copper and nickel, and total cyanide. Analytical results for the dust pile composite sample indicated the presence of silver (0.06 ppm), copper (65 ppm) and nickel (46 ppm). HRP also collected composite soil samples from beneath pavement under the dust collectors, and analyzed these for the same constituents. Copper (15 ppm) and nickel (4.2 ppm) were detected in the composite soil samples.

Five dust samples were also collected by Weston (1998) and analyzed for total metals, total cyanide and PCBs. Copper (448,000 ppm), iron (232,000 ppm), zinc (158,000 ppm), nickel (63,600 ppm), chromium (2,610 ppm), manganese (2,030 ppm), silver (558 ppm), lead (498 ppm), barium (171 ppm), cobalt (83.1 ppm), cadmium (53.2 ppm), cyanide (41 ppm) and PCBs (Aroclor 1260-19 ppm) were detected.

GZA (2000) collected additional shallow (0 to 2 feet) soil samples beneath the pavement at three locations between Building A and the dust collectors and analyzed them for total RCRA 8 metals, PCBs and total cyanide. Elevated concentrations of silver, arsenic, chromium, lead were detected. Low levels of PCBs were detected.

4.20.15 Fill Piles (PSAs 15, 16 and 22)

Miscellaneous fill piles are present throughout the Site, including: 1) an approximately 25,000 square foot area of fill located between Buildings B and C; 2) small debris pile containing insulation located south of Building C; and a pile of medical glass slides near the Building loading dock. The fill piles have not been characterized. Based on visual observations indicates that the fill principally consists of soil and construction debris. Some piles reportedly include small amounts of asbestos containing material.

4.20.16 Former Building D and UST Located West of Building D (PSAs 17 and 24)

A building containing a machine shop, a foundry facility and pattern shop was formerly located at the northeast corner of the Site. The building has been demolished and the area regraded. An UST was reportedly located adjacent Building D and may still be present on the Site. The size and contents of the tank are unknown. Based on the manufacturing activities at this location, constituents of concern include aromatic and halogenated VOCs, TPH, metals and cyanide.

Subsurface investigations in the vicinity of former Building D and the UST include an extensive soil gas survey, test borings, shallow and deep overburden monitoring wells and the collection and analysis of soil and groundwater samples.

The soil gas survey identified the presence of halogenated VOCs (in particular tetrachloroethene and trichloroethene). GZA's interpretation of the soil gas survey indicates that there were likely two separate releases of halogenated VOCs, one at the eastern portion of former Building D and one in the vicinity of the UST located west of Building D.

The soil and groundwater sampling and analyses completed to date is not adequate to characterize the release area and plume. However, according to the 1999 Weston memorandum, approximately 14,500 s.f. of soil contaminated with halogenated VOCs is present to a depth of at least 15 feet.

NAPL was not observed in any of the wells in this area. Contaminant concentrations observed in the shallow wells were higher than those observed in the deeper wells.

4.20.17 Building A (PSAs 18, 19, 20, 21 and 23)

Soil and groundwater within and surrounding Building A have not been fully characterized. The 1999 Weston report indicates that details about the specific operations within Building A are unavailable. However, due to the former manufacturing activities, historical releases of hazardous substances and petroleum are possible. Likely constituents of concern include aromatic and halogenated VOCs, TPH, metals, PCBs and cyanide. An approximately 40 s.f. area of stained concrete was observed by others at the north end of Building A. Approximately 30 s.f. of stained wooden floor were observed at the south end of the Building A. Stained soil was also observed east of Building A, between the building and Harbor Brook, and northeast of Building C.

As discussed previously, soil gas surveys were conducted by others, adjacent to the eastern and western exterior building walls. Elevated soil gas concentrations of halogenated VOCs were detected along both sides of the building.

Soil samples were collected from three test borings located within the southern portion of the building (MW-1, 2 and 3) and analyzed for total and SPLP metals and aromatic and halogenated VOCs. Low levels of both aromatic and halogenated VOCs and metals were detected in samples collected from boring MW-3. The results of these analyses are presented in Appendix D. Elevated levels of metals, including arsenic, cadmium, and lead were detected in groundwater in MW-3.

Elevated levels of metals and low levels of PCBs were detected in shallow soil samples in the area between Building A and Harbor Brook (Appendix C).

4.30 COMPARISON TO THE REMEDIATION STANDARD REGULATIONS

In accordance with Section 22a-133k-2 of the RSRs, the criteria that are applicable to the Site for polluted soil include the Direct Exposure Criteria (DEC) and Pollutant Mobility Criteria for a GB groundwater classification area (GBPMC). In accordance with Section 22a-133k-3, the criteria that are applicable to the Site for groundwater include the Volatilization Criteria (VC) and the Surface Water Protection Criteria (SWPC). Section 22a-133k-2(g) applies to the Site relative to the removal of Non-Aqueous Phase Liquids, should these be present.

Numerous potential source areas for contamination have been identified. As discussed previously, many of these have not been investigated for the presence or absence of contamination. Additional investigation of these areas are required. At the remaining source areas, releases have been identified. However, the degree and extent of contamination at these identified releases have not been fully characterized. Therefore, comparison to the RSRs is not possible at this time. However, for the purpose of preliminarily estimating environmental redevelopment costs, we have made the following preliminary comparison of the available data to the RSRs:

- releases of halogenated VOCs to soil and groundwater have been documented in the vicinity of former Building D. Concentrations of these constituents were detected in soil gas and groundwater at concentrations exceeding Volatilization Criteria.

- the halogenated VOC vinyl chloride was also detected in groundwater at the northeastern corner of Building A at concentrations exceeding Volatilization Criteria.

- soil contamination at concentrations exceeding DEC and/or GBPMC is expected at some or all of the potential source areas. Soil testing completed to-date has identified only minor and localized soil contamination.

- sitewide exceedances of the SWPC were not observed. Tetrachloroethene was detected in MW-14 (a deep overburden monitoring well) at concentrations exceeding the numerical criterion. Metals were detected in groundwater at one location at concentrations exceeding the established numerical criteria. (Note that while metals were tested for in all the groundwater samples, most analyses were for dissolved, and not total, metals. Re-analysis of groundwater samples for total metals may indicate additional exceedance of SWPC). Additional investigation is required to evaluate whether the SWPC is exceeded.

- NAPL was not encountered in any of the wells installed on-Site.

4.3.1 Sediment Quality

The RSRs do not provide numerical regulatory criteria relative to sediment quality. Elevated levels of metals have been detected in the Harbor Brook sediment, at upstream and downstream locations. These metals include chromium, copper, lead, nickel and zinc.

Site-specific ecological risk assessments are required to evaluate the impact to the environment due to metals in the brook sediment. Several metals were detected at concentrations which may effect sediment use by benthic organisms. The most significantly impacted sediment was located at a location upstream of the Site.

5.00 ENVIRONMENTAL REDEVELOPMENT COSTS

GZA has completed a preliminary estimate of environmental redevelopment costs. This estimate is based on our review of information collected by others as well as information collected by GZA and GZA's subconsultant during this study. We have assumed that the remedial goal for the Site is compliance with the RSRs. As discussed in previous sections of the report, additional investigation is required to characterize soil and groundwater contamination. Completion of this investigation is required in order to prepare more accurate cost estimates. In particular, based on our review and interpretation of the available information, we have assumed that certain remedial activities (i.e. on-site or off-site groundwater remediation and brook sediment remediation) will not be required. Should it be determined later that these activities are required, the estimated costs presented here will change.

Environmental issues associated with redevelopment include:

- Abatement of hazardous building materials and demolition of the existing structures;
- Removal of existing aboveground and underground storage tanks;
- Removal of existing miscellaneous fill; and
- Remediation or mitigation of polluted soils and groundwater.

GZA's preliminary cost estimate is summarized on Table 2. The estimate assumes the following:

- Additional remedial investigation and design will be required.

- The assumed property redevelopment details were based on the drawing titled, "Industrial Reuse Plan, Cooper Street Project, Meriden, CT," by North American Realty Advisory Services, L.P. For this alternative, approximately 32 percent of the 7.2-acre site is covered by buildings; approximately 42 percent is asphalt parking areas; approximately 16 percent is landscaped; and the remaining 11 percent is the area occupied by Harbor Brook.

- Prior to building demolition, the following materials would require abatement: asbestos containing materials; lead painted windows, doors, walls, and columns; electrical ballasts; fluorescent light tubes; transformers oil; mercury containing switches; oil pump and lines; miscellaneous containers; oil stained surfaces; and residues.

- The 55-gallon drums would be classified and disposed of as hazardous waste.

- The dust piles beneath the dust collectors would also be removed and disposed. For estimating purposes, the dust piles were assumed to be classified as hazardous waste.

- Building demolition costs assume complete building and aboveground structure (i.e., smoke stack and water tower) and foundation removal and off-site disposal of all building materials.

- Storage tank removal includes tank cleaning and soil testing required by the CTDEP and assumes that approximately 1,000 tons of contaminated soil around the tanks will require excavation and off-site disposal. The assumed quantity for off-site disposal is an allowance for all tanks and is assumed to be 50 percent due to TPH contamination and 50 percent due to VOC contamination. Also for estimating purposes, the tanks were assumed to be half full.

- Soil pollution would be managed principally by excavation and recycling/disposal of localized areas of contamination. Regulatory compliance relative to soil contamination would be achieved principally by rendering portions of the property "inaccessible" or "environmentally isolated" through the construction of buildings and/or pavement.

- Based on the information currently available, it was estimated that 5,000 cubic yards of VOC-contaminated soil, 5,000 cubic yards of TPH-contaminated soil and 1,000 cubic yards of metals-contaminated soil will require on-site management, including excavation and replacement on-site. In addition, it was assumed that 500 tons of each soil type will require off-site disposal.

- Some in-situ or on-site ex-situ treatment of VOC-contaminated soil will be required. For cost estimating purposes, we have assumed that the treatment will consist of soil vapor extraction (SVE).

- The topography of the eastern portion of the site has been altered by the placement of miscellaneous fill materials (e.g., soil, stone, and concrete). Based on observation and a recent topographical map of the site, the quantity of stockpiled debris was estimated to be 2,000 cubic yards. It was assumed that this material will be sorted on-site with some material disposed off-site as construction debris.

- It was also assumed that 150 tons of soil and debris from the site would require off-site disposal as hazardous waste.

- Sub-slab venting systems will be incorporated into the construction of the new building to address groundwater contamination that exceeds the SWPC.
- It was assumed that no on-site active groundwater remediation is required.
- It was assumed that no off-site active remediation of groundwater is required.
- It was assumed that no remediation of stream sediment is required.
- Legal and insurance costs were not included.

As indicated on the Table 2, the estimate of premium environmental costs associated with redevelopment of the property is on the order of $2.8 million (without contingency). We note that this estimate presents our opinion of the likely cost, based on the available information. It does not present the "most conservative cost". This estimate is presented for preliminary planning purposes and is subject to change pending completion of additional site investigation.

TABLE 1

SUMMARY OF GZA SOIL AND GROUNDWATER DATA
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT
PROJECT NO. 42381

SOIL

Detected Substance	Units	GZSSW-1 (0.8 to 1.3 ft.)	GZSSW-2 (1.3 to 1.8 ft.)	GZSSW-3 (1.0 to 1.5 ft.)	RES DEC	I/C DEC
PCBs (Aroclor 1260)	mg/kg	0.21	NA	0.065	1	10
Metals:						
Silver	mg/kg	154	<5.06	28.6	340	10,000
Arsenic	mg/kg	**10.2**	2.57	1.88	10	10
Barium	mg/kg	143	56.4	76.2	4,700	140,000
Cadmium	mg/kg	0.626	<0.405	0.963	34	1,000
Chromium	mg/kg	26.3	9.47	36.4	NE	NE
Mercury	mg/kg	0.109	<0.00839	0.0321	20	610
Lead	mg/kg	114	<6.27	53.1	500	1,000
Selenium	mg/kg	<17.2	<14.2	<15.5	340	10,000
Cyanide	mg/kg	4.4	<1.0	<1.0	1,400	41,000

GROUNDWATER

Detected Substance	Units	MW-3 06-Apr-00	RES VC	I/C VC	SWPC
Volatile Organic Compounds					
cis-1,2-Dichloroethene	ug/l	1.1	NE	NE	NE
Trichloroethene	ug/l	25	219	540	2,340
Metals:					
Silver	mg/l	<0.007	-	-	0.012
Arsenic	mg/l	**0.0338**	-	-	0.004
Barium	mg/l	1.55	-	-	NE
Cadmium	mg/l	**0.006**	-	-	0.006
Chromium	mg/l	0.123	-	-	NE
Mercury	mg/l	<0.0002	-	-	0.0004
Lead	mg/l	**0.206**	-	-	0.013
Selenium	mg/l	<0.005	-	-	0.05

Notes:
1. RES DEC = Residential Direct Exposure Criteria
2. I/C DEC = Industrial/Commercial Direct Exposure Criteria
3. NE = None Established by the Connecticut DEP
4. NA = Not Analyzed
5. ND = Not Detected
6. Pollution mobility criteria for PCBs and metals require TCLP/SPLP results for comparison. TCLP/SPLP analyses not performed on soil samples.
7. RES VC = Residential Volatilization Criteria
8. I/C VC = Industrial/Commercial Volatilization Criteria
9. SWPC = Surface Water Protection Criteria
10. Bold indicates exceedance of Remediation Standard Regulation Numerical Criterion

ESTIMATE OF PREMIUM ENVIRONMENTAL REDEVELOPMENT COSTS
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT
PROJECT NO. 42381

Redevelopment Alternative: Light Industrial Use

Redevelopment information based on "Industrial Reuse Plan, Cooper Street Project, Meriden, CT", by North American Realty Advisory Services, L.P.

Assumed Development Details:	Area	Percentage of Site Area
Site Area	7.2 acres	
Building Footprints	100,000 sf	32%
Harbor Brook Area	33,000 sf	11%
Landscaped Area	50,000 sf	16%
Paved Area	130,632 sf	42%

Environmental Premium Costs	Units	Quantity	Unit Cost	Cost	Comments and Assumptions	Location (1)
Remedial Investigation and Design						
Environmental Condition Assessment Form	ls	1	$ 10,000	$ 10,000		Sitewide
Phase II Environmental Site Assessment	ls	1	$ 25,000	$ 25,000	Additional explorations and analyses needed to identify areas of environmental concern.	Sitewide
Phase III Remedial Site Investigation	ls	1	$ 100,000	$ 100,000	Additional explorations and analyses needed to delineate and characterize areas of environmental concern.	Sitewide
Phase III Remedial Action Plan (RAP)	ls	1	$ 25,000	$ 25,000		Sitewide
Remedial Design (Drawings and Specifications)	ls	1	$ 120,000	$ 120,000	Based on five percent of estimated environmental premium construction costs.	Sitewide
Final Remedial Action Report (FRAR)	ls	1	$ 20,000	$ 20,000		Sitewide
Remedial Investigation and Design Subtotal				**$ 300,000**		
Building Demolition						
Building A						
Abate asbestos	ls	1	$ 210,000	$ 210,000		West
Abate lead containing materials	ls	1	$ 35,000	$ 35,000	Includes painted windows, doors, walls, and columns.	West
Abate other hazardous building materials	ls	1	$ 30,000	$ 30,000	Includes electrical ballasts, fluorescent light tubes, transformer oil, mercury containing switches, oil stains, containers, and residues in Building A.	West
Remove and dispose dust piles	ls	1	$ 5,000	$ 5,000	Includes characterization and off-site disposal as hazardous waste.	West
Demolish buildings and aboveground structures	ls	1	$ 650,000	$ 650,000	Includes foundation removal and off-site disposal of all building materials.	West

T[illegible]E 2

ESTIMATE OF PREMIUM ENVIRONMENTAL REDEVELOPMENT COSTS
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT
PROJECT NO. 42381

Environmental Premium Costs	Units	Quantity	Unit Cost	Cost	Comments and Assumptions	Location (1)
Buildings B and C						
Abate asbestos	ls	1	$ 87,000	$ 87,000		East
Abate other hazardous building materials	ls	1	$ 2,000	$ 2,000	Includes electrical ballasts, oil stains, oil pump and lines, containers, and residues in Buildings B and C.	East
Demolish buildings and aboveground structures	ls	1	$ 50,000	$ 50,000	Includes foundation, smoke stack and water tower removal and off-site disposal of all building materials.	East
Building Demolition Subtotal				$ 1,069,000		
Storage Tanks Removal						
Remove and dispose USTs & ASTs	ls	1	$ 52,000	$ 52,000	Includes tank cleaning and soil testing requirements per CT DEP regulations, does not include contaminated soil excavation or disposal costs. Assumes USTs are half full and off-site disposal of tank contents is required.	West
1,000-gallon kerosene UST						
7 possible USTs, unknown size and use					Assumed size of 5,000 gallons.	
2 300-gallon ASTs, unknown use						
Remove and dispose USTs & ASTs	ls	1	$ 85,000	$ 85,000	Includes tank cleaning and soil testing requirements per CT DEP regulations, does not include contaminated soil excavation or disposal costs. Assumes USTs are half full and off-site disposal of tank contents is required.	East
2 20,000-gallon diesel USTs						
10,000-gallon finishing rinse and wastewater UST						
Unknown size gasoline UST					Assumed size of 5,000 gallons.	
1 possible, unknown size and use					Assumed size of 5,000 gallons.	
2 200-gallon ASTs, unknown use						
1,500-gallon AST, unknown use						
Storage Tanks Removal Subtotal				$ 137,000		
Remedial Compliance Actions						
Contractor PPE	months	2	$ 2,500	$ 5,000	5 workers per day at $25 per worker	
Decontamination area	months	2	$ 7,500	$ 15,000	Includes construction, maintenance, equipment, and labor	Sitewide
Remove dry well and dispose	ls	1	$ 5,000	$ 5,000	Includes characterization and off-site disposal.	East
Excavate contaminated soil	cy	550	$ 4.00	$ 2,200	Polluted soil excavated as part of tank removal activities. Assumed 20 cy per UST.	Sitewide
Place clean soil	cy	550	$ 20	$ 11,000		Sitewide
Pavement premium	sy	14,500	$ 1	$ 14,500	An additional 0.5 inch of pavement needed to meet the RSRs.	Sitewide
Install subslab venting system	sf	100,000	$ 1	$ 100,000		Sitewide
Remediation and health and safety oversight	months	2	$ 25,000	$ 50,000	One person full time, includes monitoring equipment and PPE.	Sitewide

TABLE 2

ESTIMATE OF PREMIUM ENVIRONMENTAL REDEVELOPMENT COSTS
INTERNATIONAL SILVER COMPANY, FACTORY H
MERIDEN, CONNECTICUT
PROJECT NO. 42381

COST SUMMARY (with rounded values)

Remedial Investigation and Design	$ 300,000
Building Demolition	$ 1,100,000
Storage Tanks Removal	$ 150,000
Remedial Compliance Actions	$ 1,200,000
Related Costs	$ 65,000
Subtotal	$ 2,800,000
Contingency (10 percent)	$ 280,000
Total	$ 3,100,000

Notes:

1. Location refers to west or east of Harbor Brook, sitewide, or the brook itself.
2. Asbestos and hazardous building material abatement cost estimates provided by GZA's subconsultant, EnviroMed Services, Inc.
3. Building demolition cost estimates based on preliminary contractor estimate and experience on previous projects.

DEP Geoprobe Boring Locations
International Silver Company, Factory H Site Vicinity
Meriden, Connecticut

Prepared by Connecticut Department of Environmental Protection
Site Assessment and Support Unit, February 20, 2007

Notes:
1. Aerial Photograph obtained from City of Meriden GIS Department, dated 2005.
2. Geoprobe investigation performed by DEP Site Assessment and Support Unit on January 16, 2007
3. Geoprobe positions located by screen digitizing.
4. Not to scale.

N

State Dept. of Health No. A00076/DEP

CHAIN OF CUSTODY RECORD

Connecticut Department of Environmental Protection
Bureau of Waste Management
Emergency Response and Spill Prevention Division
79 Elm Street, Hartford, CT 06106

Mailing Address: Peter D. Zack, DEP Site Assessment and Support Unit, 79 Elm St., Hartford, CT 06106

Project Name: FACTORY H. - INSILCO

Project Address: CHERRY ST. MERIDEN.

Sampler Signature:

Project Contact Name: 424-3340 FRANK BARTOLOMEO

CT DEP Mobile Laboratory, if different please print:

Lab No.	Collector's No.	Date	Time	Sample Location/Media	No.& Type of Cont.	Tests/Comments	PID Reading
01160701	DP0412	1-16-07	1030HRS	FIELD BLANK	AIR(1) TEDLAR	VOC'S	—
01160702	DP0417	1-16-07	1030HRS	FIELD BLANK	WATER 2 VOA'S	VOC'S	—
01160703	DP0413	1-16-07	1100HRS	GP1A #43	1 TEDLAR	VOC'S	0.0
01160704	DP0418	1-16-07	1115HRS	GP1	3 VOA'S	VOC'S	5 PPM.
01160705	DP0419	1-16-07	1130HRS	GP 2 Former Machine shop	3 VOA'S	VOC'S	
01160706 ~~01160706~~	DP0415	1-16-07	1145HRS	GP3	1 TEDLAR	VOC'S	
01160707	DP0416	1-16-07	1230HRS	GP3A	3 VOA'S	VOC'S	

Relinquished By:	Date	Time	Received By:	Relinquished By:	Date	Time	Received By:
	1/16/07	1240					

Remarks:

Turnaround: Rush ☐ 3 Days ☐

Continue on the reverse side for more required information.

NARRATIVE NOTE

To: Frank Bartolomeo

From: Jianping "JP" Chen
Mobile Laboratory
CTDEP

1/18/07

Subject: VOC Field Analysis by GC/MS for sample batch: 1/16/2007
Project: Factory H.- Insilco, Cherry St., Meriden, CT

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* The concentration for tetrachloroethene for sample DP0418 was estimated due to over the quantitation limit for preserving the low concentration of the other target compounds.

Let me know if you have any questions regarding this report.

Mobile Laboratory
Connecticut State Department of Environmental Protection

Volatile Organic Compounds

(VOC Field Analysis By GC-MSD)

Sample ID:	DP0417	Sample Deliverer:	David Poynton
Sample Description:	Field Blank	Date Collected:	1/16/2007
Lab ID:	1160702	Date Received:	1/16/2007
Matrix:	Water	Date Prepared:	1/17/2007
Project:	Factory H.-Insilco	Date Analyzed:	1/17/2007 11:41
Site Location:	Cherry St. Meriden, CT	Date Reported:	1/17/2007
		Data File:	01170704.D

GC/MS Index #	Name	CAS Number	Concentration (µg/L)	PQL
2)	Dichlorodifluoromethane	75-71-8	ND	2
3)	Chloromethane	74-87-3	ND	2
4)	Chloroethene(Vinyl Chloride)	75-01-4	ND	2
5)	Bromomethane	74-83-9	ND	2
6)	Chloroethane	75-00-3	ND	2
7)	Trichlorofluoromethane	75-69-4	ND	2
8)	Acrolein (2-Propenal)	107-02-8	ND	10
9)	1,1-Dichloroethene	75-35-4	ND	2
10)	Acetone	67-64-1	ND	10
11)	Dichloromethane	75-09-2	ND	5
12)	Methyl-t-butyl ether (MTBE)	01634-04-4	ND	2
13)	(trans)-1,2-Dichloroethene	156-60-5	ND	2
14)	Acrylonitrile	107-13-1	ND	10
15)	1,1-Dichloroethane	75-34-3	ND	2
16)	Methyl Ethyl Ketone (MEK)	78-93-3	ND	10
17)	(cis)-1,2-Dichloroethene	156-59-2	ND	2
18)	2,2-Dichloropropane	594-20-7	ND	2
19)	Bromochloromethane	74-97-5	ND	2
20)	Chloroform	67-66-3	ND	2
22)	1,1,1-Trichloroethane	71-55-6	ND	2
23)	1,1-Dichloropropene	563-58-6	ND	2
24)	Tetrachloromethane	56-23-5	ND	2
26)	Benzene	71-43-2	ND	2
27)	1,2-Dichloroethane	107-06-2	ND	2
28)	Trichloroethene	79-01-6	ND	2
29)	1,2-Dichloropropane	78-87-5	ND	2
30)	Dibromomethane	74-95-3	ND	2
31)	Bromodichloromethane	75-27-4	ND	2
32)	2-Hexanone	591-78-6	ND	10
33)	(cis)-1,3-Dichloropropene	10061-01-5	ND	2
34)	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10
37)	Toluene	108-88-3	ND	2
38)	(trans)-1,3-Dichloropropene	10061-02-6	ND	2
39)	1,1,2-Trichloroethane	79-00-5	ND	2
40)	Tetrachloroethene	127-18-4	ND	2
41)	1,3-Dichloropropane	142-28-9	ND	2
42)	Dibromochloromethane	124-48-1	ND	2

43)	1,2-Dibromoethane	106-93-4	ND	2
44)	Chlorobenzene	108-90-7	ND	2
45)	1,1,1,2-Tetrachloroethane	630-20-6	ND	2
46)	Ethylbenzene	100-41-4	ND	2
47)	m-Xylene + p-Xylene	108-38-3	ND	2
48)	o-Xylene	95-47-6	ND	2
49)	Styrene	100-42-5	ND	2
50)	Bromoform	75-25-2	ND	2
51)	iso-Propylbenzene	98-82-8	ND	2
53)	1,1,2,2-Tetrachloroethane	79-34-5	ND	2
54)	Bromobenzene	108-86-1	ND	2
55)	1,2,3-Trichloropropane	96-18-4	ND	10
56)	n-Propylbenzene	103-65-1	ND	2
57)	2-Chlorotoluene	95-49-8	ND	2
58)	1,3,5-Trimethylbenzene	108-67-8	ND	2
59)	4-Chlorotoluene	106-43-4	ND	2
60)	tert-Butylbenzene	98-06-9	ND	2
61)	1,2,4-Trimethylbenzene	95-63-6	ND	2
62)	sec-Butylbenzene	135-98-8	ND	2
63)	4-iso-Propyltoluene	99-87-6	ND	2
64)	1,3-Dichlorobenzene	541-73-1	ND	2
65)	1,4-Dichlorobenzene	106-46-7	ND	2
66)	n-Butylbenzene	104-51-8	ND	2
67)	1,2-Dichlorobenzene	95-50-1	ND	2
68)	1,2-Dibromo-3-chloropropane	96-12-8	ND	10
69)	1,2,4-Trichlorobenzene	120-82-1	ND	2
70)	Hexachlorobutadiene	87-68-3	ND	2
71)	Naphthalene	91-20-3	ND	2
72)	1,2,3-Trichlorobenzene	87-61-6	ND	2
73)	Ethyl ether (Diethyl ether)	60-29-7	ND	2
74)	tert-Butanol (TBA, 2-Methyl 2-Porpanol)	75-65-0	ND	12
75)	Diisopropyl ether (DIPE, Isopropyl ether)	108-20-3	ND	2
76)	Ethyl-tert-butyl ether (ETBE)	637-92-3	ND	2
77)	tert-Amyl methyl ether (TAME)	994-05-8	ND	2
78)	2-Pentanone	107-87-9	ND	2
79)	Ethanol	64-17-5	ND	710

Tentative Identified Compound

Retention Time (min)	Name	CAS No.	Est. Conc. (µg/L)
	None		

PQL = practical quantitation limit
ND = none detected
Tentative Identified Compound = Identified by compare the mass spectrum to the computer database, for reference only.
Est. Conc. (µg/L) = estimated concentration

Reviewed by: [signature]

Approved by: [signature] JP Chen (Director, Mobile Laboratory)

Date: 1/18/07

Mobile Laboratory
Connecticut State Department of Environmental Protection

Volatile Organic Compounds

(VOC Field Analysis By GC-MSD)

Sample ID:	DP0416	Sample Deliverer:	David Poynton
Sample Description:	GP3A	Date Collected:	1/16/2007
Lab ID:	1160707	Date Received:	1/16/2007
Matrix:	Water	Date Prepared:	1/17/2007
Project:	Factory H.-Insilco	Date Analyzed:	1/17/2007 12:29
Site Location:	Cherry St. Meriden, CT	Date Reported:	1/17/2007
		Data File:	01170706.D

GC/MS Index #	Name	CAS Number	Concentration (µg/L)	PQL
2)	Dichlorodifluoromethane	75-71-8	ND	2
3)	Chloromethane	74-87-3	ND	2
4)	Chloroethene(Vinyl Chloride)	75-01-4	ND	2
5)	Bromomethane	74-83-9	ND	2
6)	Chloroethane	75-00-3	ND	2
7)	Trichlorofluoromethane	75-69-4	ND	2
8)	Acrolein (2-Propenal)	107-02-8	ND	10
9)	1,1-Dichloroethene	75-35-4	ND	2
10)	Acetone	67-64-1	ND	10
11)	Dichloromethane	75-09-2	ND	5
12)	Methyl-t-butyl ether (MTBE)	01634-04-4	ND	2
13)	(trans)-1,2-Dichloroethene	156-60-5	ND	2
14)	Acrylonitrile	107-13-1	ND	10
15)	1,1-Dichloroethane	75-34-3	ND	2
16)	Methyl Ethyl Ketone (MEK)	78-93-3	ND	10
17)	(cis)-1,2-Dichloroethene	156-59-2	ND	2
18)	2,2-Dichloropropane	594-20-7	ND	2
19)	Bromochloromethane	74-97-5	ND	2
20)	Chloroform	67-66-3	ND	2
22)	1,1,1-Trichloroethane	71-55-6	ND	2
23)	1,1-Dichloropropene	563-58-6	ND	2
24)	Tetrachloromethane	56-23-5	ND	2
26)	Benzene	71-43-2	ND	2
27)	1,2-Dichloroethane	107-06-2	ND	2
28)	Trichloroethene	79-01-6	3	2
29)	1,2-Dichloropropane	78-87-5	ND	2
30)	Dibromomethane	74-95-3	ND	2
31)	Bromodichloromethane	75-27-4	ND	2
32)	2-Hexanone	591-78-6	ND	10
33)	(cis)-1,3-Dichloropropene	10061-01-5	ND	2
34)	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10
37)	Toluene	108-88-3	ND	2
38)	(trans)-1,3-Dichloropropene	10061-02-6	ND	2
39)	1,1,2-Trichloroethane	79-00-5	ND	2
40)	Tetrachloroethene	127-18-4	5	2
41)	1,3-Dichloropropane	142-28-9	ND	2
42)	Dibromochloromethane	124-48-1	ND	2

43)	1,2-Dibromoethane	106-93-4	ND	2
44)	Chlorobenzene	108-90-7	ND	2
45)	1,1,1,2-Tetrachloroethane	630-20-6	ND	2
46)	Ethylbenzene	100-41-4	ND	2
47)	m-Xylene + p-Xylene	108-38-3	ND	2
48)	o-Xylene	95-47-6	ND	2
49)	Styrene	100-42-5	ND	2
50)	Bromoform	75-25-2	ND	2
51)	iso-Propylbenzene	98-82-8	ND	2
53)	1,1,2,2-Tetrachloroethane	79-34-5	ND	2
54)	Bromobenzene	108-86-1	ND	2
55)	1,2,3-Trichloropropane	96-18-4	ND	10
56)	n-Propylbenzene	103-65-1	ND	2
57)	2-Chlorotoluene	95-49-8	ND	2
58)	1,3,5-Trimethylbenzene	108-67-8	ND	2
59)	4-Chlorotoluene	106-43-4	ND	2
60)	tert-Butylbenzene	98-06-9	ND	2
61)	1,2,4-Trimethylbenzene	95-63-6	ND	2
62)	sec-Butylbenzene	135-98-8	ND	2
63)	4-iso-Propyltoluene	99-87-6	ND	2
64)	1,3-Dichlorobenzene	541-73-1	ND	2
65)	1,4-Dichlorobenzene	106-46-7	ND	2
66)	n-Butylbenzene	104-51-8	ND	2
67)	1,2-Dichlorobenzene	95-50-1	ND	2
68)	1,2-Dibromo-3-chloropropane	96-12-8	ND	10
69)	1,2,4-Trichlorobenzene	120-82-1	ND	2
70)	Hexachlorobutadiene	87-68-3	ND	2
71)	Naphthalene	91-20-3	ND	2
72)	1,2,3-Trichlorobenzene	87-61-6	ND	2
73)	Ethyl ether (Diethyl ether)	60-29-7	ND	2
74)	tert-Butanol (TBA, 2-Methyl 2-Porpanol)	75-65-0	ND	12
75)	Diisopropyl ether (DIPE, Isopropyl ether)	108-20-3	ND	2
76)	Ethyl-tert-butyl ether (ETBE)	637-92-3	ND	2
77)	tert-Amyl methyl ether (TAME)	994-05-8	ND	2
78)	2-Pentanone	107-87-9	ND	2
79)	Ethanol	64-17-5	ND	710

Tentative Identified Compound

Retention Time (min)	Name	CAS No.	Est. Conc. (µg/L)
	None		

PQL = practical quantitation limit
ND = none detected
Tentative Identified Compound = Identified by compare the mass spectrum to the computer database, for reference only.
Est. Conc. (µg/L) = estimated concentration

Reviewed by: Thomas [signature]

Approved by: [signature] 1/18/07 JP Chen (Director, Mobile Laboratory)

Date:

Mobile Laboratory
Connecticut State Department of Environmental Protection

Volatile Organic Compounds

(VOC Field Analysis By GC-MSD)

Sample ID:	DP0418	Sample Deliverer:	David Poynton
Sample Description:	GP1	Date Collected:	1/16/2007
Lab ID:	1160704	Date Received:	1/16/2007
Matrix:	Water	Date Prepared:	1/17/2007
Project:	Factory H.-Insilco	Date Analyzed:	1/17/2007 12:53
Site Location:	Cherry St. Meriden, CT	Date Reported:	1/17/2007
		Data File:	01170707.D

GC/MS Index #	Name	CAS Number	Concentration (µg/L)	PQL
2)	Dichlorodifluoromethane	75-71-8	ND	2
3)	Chloromethane	74-87-3	ND	2
4)	Chloroethene(Vinyl Chloride)	75-01-4	ND	2
5)	Bromomethane	74-83-9	ND	2
6)	Chloroethane	75-00-3	ND	2
7)	Trichlorofluoromethane	75-69-4	ND	2
8)	Acrolein (2-Propenal)	107-02-8	ND	10
9)	1,1-Dichloroethene	75-35-4	ND	2
10)	Acetone	67-64-1	ND	10
11)	Dichloromethane	75-09-2	ND	5
12)	Methyl-t-butyl ether (MTBE)	01634-04-4	ND	2
13)	(trans)-1,2-Dichloroethene	156-60-5	2	2
14)	Acrylonitrile	107-13-1	ND	10
15)	1,1-Dichloroethane	75-34-3	ND	2
16)	Methyl Ethyl Ketone (MEK)	78-93-3	ND	10
17)	(cis)-1,2-Dichloroethene	156-59-2	40	2
18)	2,2-Dichloropropane	594-20-7	ND	2
19)	Bromochloromethane	74-97-5	ND	2
20)	Chloroform	67-66-3	ND	2
22)	1,1,1-Trichloroethane	71-55-6	ND	2
23)	1,1-Dichloropropene	563-58-6	ND	2
24)	Tetrachloromethane	56-23-5	ND	2
26)	Benzene	71-43-2	ND	2
27)	1,2-Dichloroethane	107-06-2	ND	2
28)	Trichloroethene	79-01-6	91	2
29)	1,2-Dichloropropane	78-87-5	ND	2
30)	Dibromomethane	74-95-3	ND	2
31)	Bromodichloromethane	75-27-4	ND	2
32)	2-Hexanone	591-78-6	ND	10
33)	(cis)-1,3-Dichloropropene	10061-01-5	ND	2
34)	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10
37)	Toluene	108-88-3	ND	2
38)	(trans)-1,3-Dichloropropene	10061-02-6	ND	2
39)	1,1,2-Trichloroethane	79-00-5	ND	2
40)	Tetrachloroethene	127-18-4	825	2
41)	1,3-Dichloropropane	142-28-9	ND	2
42)	Dibromochloromethane	124-48-1	ND	2

43)	1,2-Dibromoethane	106-93-4	ND	2
44)	Chlorobenzene	108-90-7	ND	2
45)	1,1,1,2-Tetrachloroethane	630-20-6	ND	2
46)	Ethylbenzene	100-41-4	ND	2
47)	m-Xylene + p-Xylene	108-38-3	ND	2
48)	o-Xylene	95-47-6	ND	2
49)	Styrene	100-42-5	ND	2
50)	Bromoform	75-25-2	ND	2
51)	iso-Propylbenzene	98-82-8	ND	2
53)	1,1,2,2-Tetrachloroethane	79-34-5	ND	2
54)	Bromobenzene	108-86-1	ND	2
55)	1,2,3-Trichloropropane	96-18-4	ND	10
56)	n-Propylbenzene	103-65-1	ND	2
57)	2-Chlorotoluene	95-49-8	ND	2
58)	1,3,5-Trimethylbenzene	108-67-8	ND	2
59)	4-Chlorotoluene	106-43-4	ND	2
60)	tert-Butylbenzene	98-06-9	ND	2
61)	1,2,4-Trimethylbenzene	95-63-6	ND	2
62)	sec-Butylbenzene	135-98-8	ND	2
63)	4-iso-Propyltoluene	99-87-6	ND	2
64)	1,3-Dichlorobenzene	541-73-1	ND	2
65)	1,4-Dichlorobenzene	106-46-7	ND	2
66)	n-Butylbenzene	104-51-8	ND	2
67)	1,2-Dichlorobenzene	95-50-1	ND	2
68)	1,2-Dibromo-3-chloropropane	96-12-8	ND	10
69)	1,2,4-Trichlorobenzene	120-82-1	ND	2
70)	Hexachlorobutadiene	87-68-3	ND	2
71)	Naphthalene	91-20-3	ND	2
72)	1,2,3-Trichlorobenzene	87-61-6	ND	2
73)	Ethyl ether (Diethyl ether)	60-29-7	ND	2
74)	tert-Butanol (TBA, 2-Methyl 2-Porpanol)	75-65-0	ND	12
75)	Diisopropyl ether (DIPE, Isopropyl ether)	108-20-3	ND	2
76)	Ethyl-tert-butyl ether (ETBE)	637-92-3	ND	2
77)	tert-Amyl methyl ether (TAME)	994-05-8	ND	2
78)	2-Pentanone	107-87-9	ND	2
79)	Ethanol	64-17-5	ND	710

Tentative Identified Compound

Retention Time (min)	Name	CAS No.	Est. Conc. (µg/L)
	None		

PQL = practical quantitation limit
ND = none detected
Tentative Identified Compound = Identified by compare the mass spectrum to the computer database, for reference only.
Est. Conc. (µg/L) = estimated concentration

Reviewed by: Thomas McEllen

Approved by: JP Chen (Director, Mobile Laboratory)

Date: 1/18/07

Mobile Laboratory
Connecticut State Department of Environmental Protection

Volatile Organic Compounds

(VOC Field Analysis By GC-MSD)

Sample ID:	DP0419	Sample Deliverer:	David Poynton
Sample Description:	GP2	Date Collected:	1/16/2007
Lab ID:	1160705	Date Received:	1/16/2007
Matrix:	Water	Date Prepared:	1/17/2007
Project:	Factory H.-Insilco	Date Analyzed:	1/17/2007 12:06
Site Location:	Cherry St. Meriden, CT	Date Reported:	1/17/2007
		Data File:	01170705.D

GC/MS Index #	Name	CAS Number	Concentration (µg/L)	PQL
2)	Dichlorodifluoromethane	75-71-8	ND	2
3)	Chloromethane	74-87-3	ND	2
4)	Chloroethene(Vinyl Chloride)	75-01-4	ND	2
5)	Bromomethane	74-83-9	ND	2
6)	Chloroethane	75-00-3	ND	2
7)	Trichlorofluoromethane	75-69-4	ND	2
8)	Acrolein (2-Propenal)	107-02-8	ND	10
9)	1,1-Dichloroethene	75-35-4	ND	2
10)	Acetone	67-64-1	ND	10
11)	Dichloromethane	75-09-2	ND	5
12)	Methyl-t-butyl ether (MTBE)	01634-04-4	ND	2
13)	(trans)-1,2-Dichloroethene	156-60-5	ND	2
14)	Acrylonitrile	107-13-1	ND	10
15)	1,1-Dichloroethane	75-34-3	ND	2
16)	Methyl Ethyl Ketone (MEK)	78-93-3	ND	10
17)	(cis)-1,2-Dichloroethene	156-59-2	ND	2
18)	2,2-Dichloropropane	594-20-7	ND	2
19)	Bromochloromethane	74-97-5	ND	2
20)	Chloroform	67-66-3	ND	2
22)	1,1,1-Trichloroethane	71-55-6	ND	2
23)	1,1-Dichloropropene	563-58-6	ND	2
24)	Tetrachloromethane	56-23-5	ND	2
26)	Benzene	71-43-2	ND	2
27)	1,2-Dichloroethane	107-06-2	ND	2
28)	Trichloroethene	79-01-6	18	2
29)	1,2-Dichloropropane	78-87-5	ND	2
30)	Dibromomethane	74-95-3	ND	2
31)	Bromodichloromethane	75-27-4	ND	2
32)	2-Hexanone	591-78-6	ND	10
33)	(cis)-1,3-Dichloropropene	10061-01-5	ND	2
34)	4-Methyl-2-pentanone (MIBK)	108-10-1	ND	10
37)	Toluene	108-88-3	ND	2
38)	(trans)-1,3-Dichloropropene	10061-02-6	ND	2
39)	1,1,2-Trichloroethane	79-00-5	ND	2
40)	Tetrachloroethene	127-18-4	ND	2
41)	1,3-Dichloropropane	142-28-9	ND	2
42)	Dibromochloromethane	124-48-1	ND	2

43)	1,2-Dibromoethane	106-93-4	ND	2
44)	Chlorobenzene	108-90-7	ND	2
45)	1,1,1,2-Tetrachloroethane	630-20-6	ND	2
46)	Ethylbenzene	100-41-4	ND	2
47)	m-Xylene + p-Xylene	108-38-3	ND	2
48)	o-Xylene	95-47-6	ND	2
49)	Styrene	100-42-5	ND	2
50)	Bromoform	75-25-2	ND	2
51)	iso-Propylbenzene	98-82-8	ND	2
53)	1,1,2,2-Tetrachloroethane	79-34-5	ND	2
54)	Bromobenzene	108-86-1	ND	2
55)	1,2,3-Trichloropropane	96-18-4	ND	10
56)	n-Propylbenzene	103-65-1	ND	2
57)	2-Chlorotoluene	95-49-8	ND	2
58)	1,3,5-Trimethylbenzene	108-67-8	ND	2
59)	4-Chlorotoluene	106-43-4	ND	2
60)	tert-Butylbenzene	98-06-9	ND	2
61)	1,2,4-Trimethylbenzene	95-63-6	ND	2
62)	sec-Butylbenzene	135-98-8	ND	2
63)	4-iso-Propyltoluene	99-87-6	ND	2
64)	1,3-Dichlorobenzene	541-73-1	ND	2
65)	1,4-Dichlorobenzene	106-46-7	ND	2
66)	n-Butylbenzene	104-51-8	ND	2
67)	1,2-Dichlorobenzene	95-50-1	ND	2
68)	1,2-Dibromo-3-chloropropane	96-12-8	ND	10
69)	1,2,4-Trichlorobenzene	120-82-1	ND	2
70)	Hexachlorobutadiene	87-68-3	ND	2
71)	Naphthalene	91-20-3	ND	2
72)	1,2,3-Trichlorobenzene	87-61-6	ND	2
73)	Ethyl ether (Diethyl ether)	60-29-7	ND	2
74)	tert-Butanol (TBA, 2-Methyl 2-Porpanol)	75-65-0	ND	12
75)	Diisopropyl ether (DIPE, Isopropyl ether)	108-20-3	ND	2
76)	Ethyl-tert-butyl ether (ETBE)	637-92-3	ND	2
77)	tert-Amyl methyl ether (TAME)	994-05-8	ND	2
78)	2-Pentanone	107-87-9	ND	2
79)	Ethanol	64-17-5	ND	710

Tentative Identified Compound

Retention Time (min)	Name	CAS No.	Est. Conc. (µg/L)
	None		

PQL = practical quantitation limit
ND = none detected
Tentative Identified Compound = Identified by compare the mass spectrum to the computer database, for reference only.
Est. Conc. (µg/L) = estimated concentration

Reviewed by: Thomas McGhee

Approved by: JP Chen (Director, Mobile Laboratory)

Date: 1/18/07

Report Date:
26-Jan-07 15:02

☑ Final Report
☐ Re-Issued Report
☐ Revised Report

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

Laboratory Report

CT DEP, Bureau of Waste Management
79 Elm Street
Hartford, CT 06106
Attn: Frank Bartolomeo

Project: Cherry St - Meriden, CT
Project (None)

Laboratory ID	Client Sample ID	Container	Matrix	Date Sampled	Date Received
SA57117-01	DP0412	Summa canister	Air	16-Jan-07 09:30	19-Jan-07 14:26
SA57117-02	DP0413	Summa canister	Air	16-Jan-07 11:00	19-Jan-07 14:26
SA57117-03	DP0414	Summa canister	Air	16-Jan-07 11:15	19-Jan-07 14:26
SA57117-04	DP0415	Summa canister	Air	16-Jan-07 11:50	19-Jan-07 14:26

I attest that the information contained within the report has been reviewed for accuracy and checked against the quality control requirements for each method. These results relate only to the sample(s) as received.
All applicable NELAC requirements have been met
Please note that this report contains 10 pages of analytical data plus Chain of Custody document(s).
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Massachusetts Certification # M-MA138/MA1110
Connecticut # PH-0777
Florida # E87600/E87936
Maine # MA138
New Hampshire # 2538/2972
New Jersey # MA011/MA012
New York # 11393/11840
Rhode Island # 98
USDA # S-51435
Vermont # VT-11393

ACCREDITED IN ACCORDANCE WITH nelac

Authorized by:

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Technical Reviewer's Initial:

Spectrum Analytical, Inc. is a NELAC accredited laboratory organization and meets NELAC testing standards. Use of the NELAC logo however does not insure that Spectrum is currently accredited for the specific method or analyte indicated. Please refer to our "Quality" web page at www.spectrum-analytical.com for a full listing of our current certifications and fields of accreditation. States in which Spectrum Analytical, Inc. holds NELAC certification are New York, New Hampshire, New Jersey and Florida. All analytical work for Volatile Organic and Air analysis are transferred to and conducted at our 830 Silver Street location (NH-2972, NY-11840, FL-E87936 and NJ-MA012).

RECEIVED
FEB 05 2007
DEPT. OF ENVIRONMENTAL PROTECTION
SITE ASSESSMENT & SUPPORT UNIT

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DP0412, SA57117-01	(None)	Air	16-Jan-07 09:30	19-Jan-07

CAS No.	Analyte(s)	Result Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Batch	Analyst
A[illegible] Quality Analyses										
M[illegible]fied EPA TO-14A		*ppbv*	*Prepared 23-Jan-07*							
75-71-8	Dichlorodifluoromethane (Freon12)	0.570	0.500	2.8	2.5		Mod. EPA TO-14A	23-Jan-07	7011620	WB
74-87-3	Chloromethane	0.550	0.500	1.1	1.0		"	"	"	"
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	BRL	3.5		"	"	"	"
75-01-4	Vinyl chloride	BRL	0.500	BRL	1.3		"	"	"	"
74-83-9	Bromomethane	BRL	0.500	BRL	1.9		"	"	"	"
75-00-3	Chloroethane	BRL	0.500	BRL	1.3		"	"	"	"
75-69-4	Trichlorofluoromethane (Freon 11)	BRL	0.500	BRL	2.8		"	"	"	"
75-35-4	1,1-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
75-09-2	Methylene chloride	BRL	0.500	BRL	1.7		"	"	"	"
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	BRL	3.8		"	"	"	"
75-34-3	1,1-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
156-59-2	cis-1,2-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
67-66-3	Chloroform	BRL	0.500	BRL	2.4		"	"	"	"
107-06-2	1,2-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
71-55-6	1,1,1-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
71-43-2	Benzene	BRL	0.500	BRL	1.6		"	"	"	"
56-23-5	Carbon tetrachloride	BRL	0.500	BRL	3.2		"	"	"	"
78-87-5	1,2-Dichloropropane	BRL	0.500	BRL	2.3		"	"	"	"
79-01-6	Trichloroethene	BRL	0.500	BRL	2.7		"	"	"	"
10061-01-5	cis-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
10061-02-6	trans-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
[illegible]	1,1,2-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
10[illegible]-88-3	Toluene	BRL	0.500	BRL	1.9		"	"	"	"
106-93-4	1,2-Dibromoethane (EDB)	BRL	0.500	BRL	3.8		"	"	"	"
127-18-4	Tetrachloroethene	BRL	0.500	BRL	3.4		"	"	"	"
108-90-7	Chlorobenzene	BRL	0.500	BRL	2.3		"	"	"	"
100-41-4	Ethylbenzene	BRL	0.500	BRL	2.2		"	"	"	"
1330-20-7	m,p-Xylene	BRL	0.500	BRL	2.2		"	"	"	"
100-42-5	Styrene	BRL	0.500	BRL	2.1		"	"	"	"
95-47-6	o-Xylene	BRL	0.500	BRL	2.2		"	"	"	"
79-34-5	1,1,2,2-Tetrachloroethane	BRL	0.500	BRL	3.4		"	"	"	"
108-67-8	1,3,5-Trimethylbenzene	BRL	0.500	BRL	2.5		"	"	"	"
622-96-8	4-Ethyltoluene	BRL	0.500	BRL	2.5		"	"	"	"
95-63-6	1,2,4-Trimethylbenzene	BRL	0.500	BRL	2.5		"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
100-44-7	Benzyl chloride	BRL	0.500	BRL	2.6		"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
120-82-1	1,2,4-Trichlorobenzene	BRL	0.500	BRL	3.7		"	"	"	"
87-68-3	Hexachlorobutadiene	BRL	0.500	BRL	5.3		"	"	"	"
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*97.6*	*75-125 %*				"	"	"	"

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* Reportable Detection Limit BRL = Below Reporting Limit

Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DP0413	(None)	Air	16-Jan-07 11:00	19-Jan-07
SA57117-02				

CAS No.	Analyte(s)	Result Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Batch	Analyst
A[illegible] Quality Analyses										
M[illegible]fied EPA TO-14A		*ppbv*	*Prepared 23-Jan-07*							
75-71-8	Dichlorodifluoromethane (Freon12)	0.530	0.500	2.6	2.5		Mod. EPA TO-14A	23-Jan-07	7011620	WB
74-87-3	Chloromethane	BRL	0.500	BRL	1.0		"	"	"	"
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	BRL	3.5		"	"	"	"
75-01-4	Vinyl chloride	BRL	0.500	BRL	1.3		"	"	"	"
74-83-9	Bromomethane	BRL	0.500	BRL	1.9		"	"	"	"
75-00-3	Chloroethane	BRL	0.500	BRL	1.3		"	"	"	"
75-69-4	Trichlorofluoromethane (Freon 11)	BRL	0.500	BRL	2.8		"	"	"	"
75-35-4	1,1-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
75-09-2	Methylene chloride	BRL	0.500	BRL	1.7		"	"	"	"
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	BRL	3.8		"	"	"	"
75-34-3	1,1-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
156-59-2	cis-1,2-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
67-66-3	Chloroform	BRL	0.500	BRL	2.4		"	"	"	"
107-06-2	1,2-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
71-55-6	1,1,1-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
71-43-2	Benzene	1.77	0.500	5.7	1.6		"	"	"	"
56-23-5	Carbon tetrachloride	BRL	0.500	BRL	3.2		"	"	"	"
78-87-5	1,2-Dichloropropane	BRL	0.500	BRL	2.3		"	"	"	"
79-01-6	Trichloroethene	1.16	0.500	6.2	2.7		"	"	"	"
10061-01-5	cis-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
10061-02-6	trans-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
7[illegible]	1,1,2-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
10[illegible]-3	Toluene	2.68	0.500	10.1	1.9		"	"	"	"
106-93-4	1,2-Dibromoethane (EDB)	BRL	0.500	BRL	3.8		"	"	"	"
127-18-4	Tetrachloroethene	6.95	0.500	47.1	3.4		"	"	"	"
108-90-7	Chlorobenzene	BRL	0.500	BRL	2.3		"	"	"	"
100-41-4	Ethylbenzene	0.780	0.500	3.4	2.2		"	"	"	"
1330-20-7	m,p-Xylene	2.16	0.500	9.4	2.2		"	"	"	"
100-42-5	Styrene	BRL	0.500	BRL	2.1		"	"	"	"
95-47-6	o-Xylene	0.640	0.500	2.8	2.2		"	"	"	"
79-34-5	1,1,2,2-Tetrachloroethane	BRL	0.500	BRL	3.4		"	"	"	"
108-67-8	1,3,5-Trimethylbenzene	BRL	0.500	BRL	2.5		"	"	"	"
622-96-8	4-Ethyltoluene	BRL	0.500	BRL	2.5		"	"	"	"
95-63-6	1,2,4-Trimethylbenzene	0.880	0.500	4.3	2.5		"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
100-44-7	Benzyl chloride	BRL	0.500	BRL	2.6		"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
120-82-1	1,2,4-Trichlorobenzene	BRL	0.500	BRL	3.7		"	"	"	"
87-68-3	Hexachlorobutadiene	BRL	0.500	BRL	5.3		"	"	"	"
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*96.8*	*75-125 %*				"	"	"	"

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DP0414	(None)	Air	16-Jan-07 11:15	19-Jan-07
SA57117-03				

A[illegible] Quality Analyses

CAS No.	Analyte(s)	Result Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Batch	Analyst
	[illegible]fied EPA TO-14A	*ppbv*	*Prepared 23-Jan-07*							
75-71-8	Dichlorodifluoromethane (Freon12)	0.530	0.500	2.6	2.5		Mod. EPA TO-14A	23-Jan-07	7011620	WB
74-87-3	Chloromethane	BRL	0.500	BRL	1.0		"	"	"	"
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	BRL	3.5		"	"	"	"
75-01-4	Vinyl chloride	BRL	0.500	BRL	1.3		"	"	"	"
74-83-9	Bromomethane	BRL	0.500	BRL	1.9		"	"	"	"
75-00-3	Chloroethane	BRL	0.500	BRL	1.3		"	"	"	"
75-69-4	Trichlorofluoromethane (Freon 11)	BRL	0.500	BRL	2.8		"	"	"	"
75-35-4	1,1-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
75-09-2	Methylene chloride	BRL	0.500	BRL	1.7		"	"	"	"
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	BRL	3.8		"	"	"	"
75-34-3	1,1-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
156-59-2	cis-1,2-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
67-66-3	Chloroform	BRL	0.500	BRL	2.4		"	"	"	"
107-06-2	1,2-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
71-55-6	1,1,1-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
71-43-2	Benzene	1.05	0.500	3.4	1.6		"	"	"	"
56-23-5	Carbon tetrachloride	BRL	0.500	BRL	3.2		"	"	"	"
78-87-5	1,2-Dichloropropane	BRL	0.500	BRL	2.3		"	"	"	"
79-01-6	Trichloroethene	1.21	0.500	6.5	2.7		"	"	"	"
10061-01-5	cis-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
10061-02-6	trans-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
7[illegible]	1,1,2-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
1[illegible]-3	Toluene	1.57	0.500	5.9	1.9		"	"	"	"
106-93-4	1,2-Dibromoethane (EDB)	BRL	0.500	BRL	3.8		"	"	"	"
127-18-4	Tetrachloroethene	8.11	0.500	55.0	3.4		"	"	"	"
108-90-7	Chlorobenzene	BRL	0.500	BRL	2.3		"	"	"	"
100-41-4	Ethylbenzene	BRL	0.500	BRL	2.2		"	"	"	"
1330-20-7	m,p-Xylene	1.34	0.500	5.8	2.2		"	"	"	"
100-42-5	Styrene	BRL	0.500	BRL	2.1		"	"	"	"
95-47-6	o-Xylene	BRL	0.500	BRL	2.2		"	"	"	"
79-34-5	1,1,2,2-Tetrachloroethane	BRL	0.500	BRL	3.4		"	"	"	"
108-67-8	1,3,5-Trimethylbenzene	BRL	0.500	BRL	2.5		"	"	"	"
622-96-8	4-Ethyltoluene	BRL	0.500	BRL	2.5		"	"	"	"
95-63-6	1,2,4-Trimethylbenzene	0.690	0.500	3.4	2.5		"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
100-44-7	Benzyl chloride	BRL	0.500	BRL	2.6		"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
120-82-1	1,2,4-Trichlorobenzene	BRL	0.500	BRL	3.7		"	"	"	"
87-68-3	Hexachlorobutadiene	BRL	0.500	BRL	5.3		"	"	"	"
Surrogate recoveries:										
460-00-4	*4-Bromofluorobenzene*	*96.0*	*75-125 %*				"	"	"	"

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Sample Identification	Client Project #	Matrix	Collection Date/Time	Received
DP0415	(None)	Air	16-Jan-07 11:50	19-Jan-07
SA57117-04				

Air Quality Analyses

ified EPA TO-14A — ppbv — *Prepared 23-Jan-07*

CAS No.	Analyte(s)	Result Units	*RDL	Result ug/m³	*RDL	Flag	Method Ref.	Analyzed	Batch	Analyst
75-71-8	Dichlorodifluoromethane (Freon12)	0.580	0.500	2.9	2.5		Mod. EPA TO-14A	23-Jan-07	7011620	WB
74-87-3	Chloromethane	BRL	0.500	BRL	1.0		"	"	"	"
76-14-2	1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	BRL	3.5		"	"	"	"
75-01-4	Vinyl chloride	BRL	0.500	BRL	1.3		"	"	"	"
74-83-9	Bromomethane	BRL	0.500	BRL	1.9		"	"	"	"
75-00-3	Chloroethane	BRL	0.500	BRL	1.3		"	"	"	"
75-69-4	Trichlorofluoromethane (Freon 11)	BRL	0.500	BRL	2.8		"	"	"	"
75-35-4	1,1-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
75-09-2	Methylene chloride	BRL	0.500	BRL	1.7		"	"	"	"
76-13-1	1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	BRL	3.8		"	"	"	"
75-34-3	1,1-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
156-59-2	cis-1,2-Dichloroethene	BRL	0.500	BRL	2.0		"	"	"	"
67-66-3	Chloroform	BRL	0.500	BRL	2.4		"	"	"	"
107-06-2	1,2-Dichloroethane	BRL	0.500	BRL	2.0		"	"	"	"
71-55-6	1,1,1-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
71-43-2	Benzene	0.560	0.500	1.8	1.6		"	"	"	"
56-23-5	Carbon tetrachloride	BRL	0.500	BRL	3.2		"	"	"	"
78-87-5	1,2-Dichloropropane	BRL	0.500	BRL	2.3		"	"	"	"
79-01-6	Trichloroethene	1.73	0.500	9.3	2.7		"	"	"	"
10061-01-5	cis-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
10061-02-6	trans-1,3-Dichloropropene	BRL	0.500	BRL	2.3		"	"	"	"
[illegible]5	1,1,2-Trichloroethane	BRL	0.500	BRL	2.7		"	"	"	"
[illegible]-3	Toluene	3.35	0.500	12.6	1.9		"	"	"	"
106-93-4	1,2-Dibromoethane (EDB)	BRL	0.500	BRL	3.8		"	"	"	"
127-18-4	Tetrachloroethene	3.87	0.500	26.2	3.4		"	"	"	"
108-90-7	Chlorobenzene	BRL	0.500	BRL	2.3		"	"	"	"
100-41-4	Ethylbenzene	0.960	0.500	4.2	2.2		"	"	"	"
1330-20-7	m,p-Xylene	2.58	0.500	11.2	2.2		"	"	"	"
100-42-5	Styrene	BRL	0.500	BRL	2.1		"	"	"	"
95-47-6	o-Xylene	0.730	0.500	3.2	2.2		"	"	"	"
79-34-5	1,1,2,2-Tetrachloroethane	BRL	0.500	BRL	3.4		"	"	"	"
108-67-8	1,3,5-Trimethylbenzene	BRL	0.500	BRL	2.5		"	"	"	"
622-96-8	4-Ethyltoluene	BRL	0.500	BRL	2.5		"	"	"	"
95-63-6	1,2,4-Trimethylbenzene	0.860	0.500	4.2	2.5		"	"	"	"
541-73-1	1,3-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
100-44-7	Benzyl chloride	BRL	0.500	BRL	2.6		"	"	"	"
106-46-7	1,4-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
95-50-1	1,2-Dichlorobenzene	BRL	0.500	BRL	3.0		"	"	"	"
120-82-1	1,2,4-Trichlorobenzene	BRL	0.500	BRL	3.7		"	"	"	"
87-68-3	Hexachlorobutadiene	BRL	0.500	BRL	[illegible]		"	"	"	"

Surrogate recoveries:

460-00-4	*4-Bromofluorobenzene*	*97.6*	*75-125 %*				"	"	"	"

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Air Quality Analyses - Quality Control

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7011620 - General Air Prep										
Blank (7011620-BLK1)				Prepared & Analyzed: 23-Jan-07						
Dichlorodifluoromethane (Freon12)	BRL	0.500	ppbv							
Chloromethane	BRL	0.500	ppbv							
1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	ppbv							
Vinyl chloride	BRL	0.500	ppbv							
Bromomethane	BRL	0.500	ppbv							
Chloroethane	BRL	0.500	ppbv							
Trichlorofluoromethane (Freon 11)	BRL	0.500	ppbv							
1,1-Dichloroethene	BRL	0.500	ppbv							
Methylene chloride	BRL	0.500	ppbv							
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	ppbv							
1,1-Dichloroethane	BRL	0.500	ppbv							
cis-1,2-Dichloroethene	BRL	0.500	ppbv							
Chloroform	BRL	0.500	ppbv							
1,2-Dichloroethane	BRL	0.500	ppbv							
1,1,1-Trichloroethane	BRL	0.500	ppbv							
Benzene	BRL	0.500	ppbv							
Carbon tetrachloride	BRL	0.500	ppbv							
1,2-Dichloropropane	BRL	0.500	ppbv							
Trichloroethene	BRL	0.500	ppbv							
cis-1,3-Dichloropropene	BRL	0.500	ppbv							
trans-1,3-Dichloropropene	BRL	0.500	ppbv							
1,1,2-Trichloroethane	BRL	0.500	ppbv							
Toluene	BRL	0.500	ppbv							
1,2-Dibromoethane (EDB)	BRL	0.500	ppbv							
Tetrachloroethene	BRL	0.500	ppbv							
Chlorobenzene	BRL	0.500	ppbv							
Ethylbenzene	BRL	0.500	ppbv							
m,p-Xylene	BRL	0.500	ppbv							
Styrene	BRL	0.500	ppbv							
o-Xylene	BRL	0.500	ppbv							
1,1,2,2-Tetrachloroethane	BRL	0.500	ppbv							
1,3,5-Trimethylbenzene	BRL	0.500	ppbv							
4-Ethyltoluene	BRL	0.500	ppbv							
1,2,4-Trimethylbenzene	BRL	0.500	ppbv							
1,3-Dichlorobenzene	BRL	0.500	ppbv							
Benzyl chloride	BRL	0.500	ppbv							
1,4-Dichlorobenzene	BRL	0.500	ppbv							
1,2-Dichlorobenzene	BRL	0.500	ppbv							
1,2,4-Trichlorobenzene	BRL	0.500	ppbv							
Hexachlorobutadiene	BRL	0.500	ppbv							
Surrogate: 4-Bromofluorobenzene	*11.6*		ppbv	*12.5*		*92.8*	*75-125*			
LCS (7011620-BS1)				Prepared & Analyzed: 23-Jan-07						
Dichlorodifluoromethane (Freon12)	9.04		ppbv	10.0		90.4	70-130			
Chloromethane	9.17		ppbv	10.0		91.7	70-130			
1,2-Dichlorotetrafluoroethane (Freon 114)	9.79		ppbv	10.0		97.9	70-130			
Vinyl chloride	10.4		ppbv	10.0		104	70-130			
Bromomethane	11.2		ppbv	10.0		112	70-130			
Chloroethane	12.9		ppbv	10.0		129	70-130			
Trichlorofluoromethane (Freon 11)	9.16		ppbv	10.0		91.6	70-130			
1,1-Dichloroethene	8.93		ppbv	10.0		89.3	70-130			
Methylene chloride	9.74		ppbv	10.0		97.4	70-130			
1,1,2-Trichlorotrifluoroethane (Freon 113)	9.06		ppbv	10.0		90.6	70-130			
1,1-Dichloroethane	10.0		ppbv	10.0		100	70-130			

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Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7011620 - General Air Prep										
LCS (7011620-BS1)				Prepared & Analyzed: 23-Jan-07						
cis-1,2-Dichloroethene	9.72		ppbv	10.0		97.2	70-130			
Chloroform	9.56		ppbv	10.0		95.6	70-130			
1,2-Dichloroethane	9.64		ppbv	10.0		96.4	70-130			
1,1,1-Trichloroethane	9.80		ppbv	10.0		98.0	70-130			
Benzene	9.93		ppbv	10.0		99.3	70-130			
Carbon tetrachloride	9.30		ppbv	10.0		93.0	70-130			
1,2-Dichloropropane	10.6		ppbv	10.0		106	70-130			
Trichloroethene	10.3		ppbv	10.0		103	70-130			
cis-1,3-Dichloropropene	9.56		ppbv	10.0		95.6	70-130			
trans-1,3-Dichloropropene	10.4		ppbv	10.0		104	70-130			
1,1,2-Trichloroethane	10.4		ppbv	10.0		104	70-130			
Toluene	9.95		ppbv	10.0		99.5	70-130			
1,2-Dibromoethane (EDB)	9.95		ppbv	10.0		99.5	70-130			
Tetrachloroethene	9.78		ppbv	10.0		97.8	70-130			
Chlorobenzene	9.97		ppbv	10.0		99.7	70-130			
Ethylbenzene	10.1		ppbv	10.0		101	70-130			
m,p-Xylene	21.3		ppbv	20.0		106	70-130			
Styrene	12.6		ppbv	10.0		126	70-130			
o-Xylene	11.2		ppbv	10.0		112	70-130			
1,1,2,2-Tetrachloroethane	12.3		ppbv	10.0		123	70-130			
1,3,5-Trimethylbenzene	13.6		ppbv	10.0		136	70-130			QC2
4-Ethyltoluene	12.2		ppbv	10.0		122	70-130			
1,2,4-Trimethylbenzene	12.9		ppbv	10.0		129	70-130			
1,3-Dichlorobenzene	12.0		ppbv	10.0		120	70-130			
Benzyl chloride	12.7		ppbv	10.0		127	70-130			
1,4-Dichlorobenzene	11.9		ppbv	10.0		119	70-130			
1,2-Dichlorobenzene	12.8		ppbv	10.0		128	70-130			
1,2,4-Trichlorobenzene	11.4		ppbv	10.0		114	70-130			
Hexachlorobutadiene	12.0		ppbv	10.0		120	70-130			
Surrogate: 4-Bromofluorobenzene	*12.5*		ppbv	*12.5*		*100*	*75-125*			
Duplicate (7011620-DUP1)		**Source: SA57155-02**		Prepared: 23-Jan-07 Analyzed: 24-Jan-07						
Dichlorodifluoromethane (Freon12)	0.570	0.500	ppbv		0.570			0.00	30	
Chloromethane	0.560	0.500	ppbv		0.570			1.77	30	
1,2-Dichlorotetrafluoroethane (Freon 114)	BRL	0.500	ppbv		BRL				30	
Vinyl chloride	BRL	0.500	ppbv		BRL				30	
Bromomethane	BRL	0.500	ppbv		BRL				30	
Chloroethane	BRL	0.500	ppbv		BRL				30	
Trichlorofluoromethane (Freon 11)	BRL	0.500	ppbv		BRL				30	
1,1-Dichloroethene	BRL	0.500	ppbv		BRL				30	
Methylene chloride	BRL	0.500	ppbv		BRL				30	
1,1,2-Trichlorotrifluoroethane (Freon 113)	BRL	0.500	ppbv		BRL				30	
1,1-Dichloroethane	BRL	0.500	ppbv		BRL				30	
cis-1,2-Dichloroethene	BRL	0.500	ppbv		BRL				30	
Chloroform	BRL	0.500	ppbv		BRL				30	
1,2-Dichloroethane	BRL	0.500	ppbv		BRL				30	
1,1,1-Trichloroethane	BRL	0.500	ppbv		BRL				30	
Benzene	0.310	0.500	ppbv		0.320			3.17	30	J
Carbon tetrachloride	BRL	0.500	ppbv		BRL				30	
1,2-Dichloropropane	BRL	0.500	ppbv		BRL				30	
Trichloroethene	BRL	0.500	ppbv		BRL				30	
cis-1,3-Dichloropropene	BRL	0.500	ppbv		BRL				30	
trans-1,3-Dichloropropene	BRL	0.500	ppbv		BRL				30	
1,1,2-Trichloroethane	BRL	0.500	ppbv		BRL				30	

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This laboratory report is not valid without an authorized signature on the cover page.

* Reportable Detection Limit BRL = Below Reporting Limit

Analyte(s)	Result	*RDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Flag
Batch 7011620 - General Air Prep										
Duplicate (7011620-DUP1)		**Source: SA57155-02**		Prepared: 23-Jan-07 Analyzed: 24-Jan-07						
Toluene	0.370	0.500	ppbv		0.400			7.79	30	J
1,2-Dibromoethane (EDB)	BRL	0.500	ppbv		BRL				30	
Tetrachloroethene	BRL	0.500	ppbv		BRL				30	
Chlorobenzene	BRL	0.500	ppbv		BRL				30	
Ethylbenzene	BRL	0.500	ppbv		BRL				30	
m,p-Xylene	BRL	0.500	ppbv		BRL				30	
Styrene	BRL	0.500	ppbv		BRL				30	
o-Xylene	BRL	0.500	ppbv		BRL				30	
1,1,2,2-Tetrachloroethane	BRL	0.500	ppbv		BRL				30	
1,3,5-Trimethylbenzene	BRL	0.500	ppbv		BRL				30	
4-Ethyltoluene	BRL	0.500	ppbv		BRL				30	
1,2,4-Trimethylbenzene	BRL	0.500	ppbv		BRL				30	
1,3-Dichlorobenzene	BRL	0.500	ppbv		BRL				30	
Benzyl chloride	BRL	0.500	ppbv		BRL				30	
1,4-Dichlorobenzene	BRL	0.500	ppbv		BRL				30	
1,2-Dichlorobenzene	BRL	0.500	ppbv		BRL				30	
1,2,4-Trichlorobenzene	BRL	0.500	ppbv		BRL				30	
Hexachlorobutadiene	BRL	0.500	ppbv		BRL				30	
Surrogate: 4-Bromofluorobenzene	*12.1*		ppbv	*12.5*		*96.8*	*75-125*			

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Notes and Definitions

QC2	Analyte out of acceptance range in QC spike but no reportable concentration present in sample
BRL	Below Reporting Limit - Analyte NOT DETECTED at or above the reporting limit
dry	Sample results reported on a dry weight basis
NR	Not Reported
RPD	Relative Percent Difference

A plus sign (+) in the Method Reference column indicates the method is not accredited by NELAC

Laboratory Control Sample (LCS): A known matrix spiked with compound(s) representative of the target analytes, which is used to document laboratory performance.

Matrix Duplicate: An intra-laboratory split sample which is used to document the precision of a method in a given sample matrix

Matrix Spike: An aliquot of a sample spiked with a known concentration of target analyte(s). The spiking occurs prior to sample preparation and analysis. A matrix spike is used to document the bias of a method in a given sample matrix

Method Blank: An analyte-free matrix to which all reagents are added in the same volumes or proportions as used in sample processing. The method blank should be carried through the complete sample preparation and analytical procedure The method blank is used to document contamination resulting from the analytical process

Method Detection Limit (MDL): The minimum concentration of a substance that can be measured and reported with99% confidence that the analyte concentration is greater than zero and is determined from analysis of a sample in a given matrix type containing the analyte.

Reportable Detection Limit (RDL): The lowest concentration that can be reliably achieved within specified limits of precision and accuracy during routine laboratory operating conditions For many analytes the RDL analyte concentration is selected as the lowest non-zero standard in the calibration curve. While the RDL is approximately 5 to 10 times the MDL, the RDL for each sample takes into account the sample volume/weight, extract/digestate volume, cleanup procedures and, if applicable, dry weight correction. Sample RDLs are highly matrix-dependent.

Surrogate: An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but which is not normally found in environmental samples These compounds are spiked into all blanks, standards, and samples prior to analysis. Percent recoveries are calculated for each surrogate.

Validated by:
Hanibal C. Tayeh, Ph.D.
Nicole Brown

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Reasonable Confidence Protocols
Laboratory Analysis
QA/QC Certification Form

Laboratory Name: Spectrum Analytical, Inc. - Agawam, MA

Client: CT DEP, Bureau of Waste Management

Project Location: Cherry St - Meriden, CT

Project Number: (None)

Sampling Date(s):
16-Jan-07

Laboratory Sample ID(s):
SA57117-01 through SA57117-04

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed (including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents)?	☑ Yes ☐ No
2	Were all samples received by the laboratory in a condition consistent with that described on the associated chain-of-custody document(s)?	☑ Yes ☐ No
3	Were samples received at an appropriate temperature (4° C ± 2°)? If no, the attached narrative should include any explanation as to acceptability of samples received at other temperatures	☐ Yes ☑ No
4	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved?	☑ Yes ☐ No
5	Were reporting limits specified on the chain-of-custody met?	☑ Yes ☐ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☑ Yes ☐ No
7	Are project-specific QC samples included in this data set?	☑ Yes ☐ No

Note: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1 is "No", the data package does not meet the requirements for "Reasonable Confidence."

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for obtaining the information contained in this analytical report, such information is accurate and complete.

Hanibal C. Tayeh, Ph.D.
President/Laboratory Director

Date: 1/26/2007

SA S7117 ✓ EM

SPECTRUM ANALYTICAL, INC.
Featuring
HANIBAL TECHNOLOGY

CHAIN OF CUSTODY RECORD

Page 1 of 1

Special Handling:
☑ Standard TAT - 7 to 10 business days
☐ Rush TAT - Date Needed:_____
· All TATs subject to laboratory approval. Min. 24-hour notification needed for rushes.
· Samples disposed of after 60 days unless otherwise instructed.

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Report To: FRANK BARTOLOMEO
CT DEP
79 ELM ST
HARTFORD CT 06106
Project Mgr.:

Invoice To: CT DEP WH#7001320
79 ELM ST
HARTFORD CT 06106
ATT: SITE ASSESSMENT & SUPPORT UNIT
P.O. No.: RQN:

Project No.:
Site Name: CHERRY ST
Location: MERIDEN State:
Sampler(s): DAVID L POYNTON

1=Na_2S2O_3 2=HCl 3=H_2SO_4 4=HNO_3 5=NaOH 6=Ascorbic Acid
7=CH_3OH 8= $NaHSO_4$ 9= NO/A 10=

DW=Drinking Water GW=Groundwater WW=Wastewater
O=Oil SW= Surface Water SO=Soil SL=Sludge A=Air
X1= X2= X3=

G=Grab C=Composite

Containers: Analyses:

Lab Id:	Sample Id:	Date:	Time:	Type	Matrix	Preservative	# of VOA Vials	# of Amber Glass	# of Clear Glass	# of Plastic	Summa Cn.		TO14							QA Reporting Notes: (check if needed)
S7117-01	DP0412	1-16-07	@0930 HRS	G	A	9					1		✓							FIELD BLANK. (#5574)
02	DP0413	1-16-07	@1100 HRS	G	A	9					1		✓							GP1A
03	DP0414	1-16-07	@1115 HRS	G	A	9					1		✓							GP1A Dup.
04	DP0415	1-16-07	@1150 HRS	G	A	9					1		✓							GP2

☐ Provide MA DEP MCP CAM Report
☒ Provide CT DPH RCP Report

QA/QC Reporting Level
☒ Standard ☐ No QC
☐ Other_____

State specific reporting standards:

☐ Fax results when available to (____) _____
☐ E-mail to _____
EDD Format _____

Condition upon receipt: ☐ Iced ☐ Ambient ☐ °C 20

Relinquished by:	Received by:	Date:	Time:
[signature]	[signature]	1/18/07	08:40
[signature]	DEC	1/19/07	9:56 AM
DEC	[signature]	1/19/07	1426

Appendix F

Appendix F

APPENDIX F: BORING LOGS, WELL COMPLETION LOGS AND WELL SAMPLE DATA SHEETS

SOIL BORING LOGS

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY AECOM

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-19-MW-1
		LOCATION: On Site, N: W	Elevation: / Total Depth: 15
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/30/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
					54/60	0-6 pavement and sub base gravels 6-54 Reddish brown medium to coarse sand some fine sand and silt, trace gravel	
5							
					36/60	0-36 Reddish brown medium to fine sands and silt, trace fine gravel and coar	Wet at 6
10							
					32-60	0-32 Reddish brown medium to fine sand and siltl	
15							
						Well set at 13 feet below ground surface Screen 3 to 13 feet Seal at 3 feet .	
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC 30-MW-1

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-1-SB-1
		LOCATION: On Site,	Elevation: / Total Depth: 15
DRILL CONTRACTOR :	Glacier Drilling	N: W	
DRILL RIG:	6600 (	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
Hole Size : 2.25	Weather : Sunny 70's	DRILLER : Barry	FINISHED : 3/29/06
Drilling Method :		Drilling Fluid : None	Ground Water (Depth/Elev.) : Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-2	0.0	15:10		30/60	0-20 Reddish brown medium to fine sand and silt, some Fine gravel and Coarse Sand, trace fractured cobbles 20-30 Black medium to fine sand and silt, little brick and ash like materials	
5	4-6		13:30				
	6-8		13:35		40/60	0-16 Black medium to fine sand and silt, little brick and ash like materials 16-30 Black Ash with trace white ash 30-40 Redish brown medium to fine sand and silt	wet at 7'
10							
					54/60	0-54 Reddish Brown Medium to fine sand sand silt little coarse sand, trace fi	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-13-SB-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/29/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION (NOTE: Depths read from top of recovered sample)	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	14:10			0-16 Brown fine to coarse sand and silt	
						16-44 Brown silt and very fine sands	
	2-4	0.0	14:20		48/60		
5	4-6	0.0	14:30			44-48 Brown medium to fine sand and silt, some coarse sand.	Wet 4.5
						0-16 Brown medium to fine sand and silt, some coarse sand.	
						16-23 Brown medium to fine sand and silt, some coarse sand.	wet at 7'
					48/60	23-48 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
10							
						0-20 Reddish brown medium to fine sand and silt with coarse sand and fine g	
						20-44 Reddish brown fine to very fine sand and silt.	
					44/60		
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-15-SB-1
		LOCATION: On Site,	Elevation: / Total Depth: 4
		N: W	
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/29/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	13:25			0-16 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4	0.0	13:30		52/60	16-24 Reddish brown medium to fine sand and silt with coarse sand and fine gravel little medium gravel	
5						24-48 Brown fine to medium sand and silt	
						48-52 Brown fine to medium sand and silt	Wet 4.5
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-SA-C-SB-
		LOCATION: On Site, N: W	Elevation: / Total Depth: 4
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 C	DRILLER : Barry	FINISHED : 3/29/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	13:25			0-48 Reddish Brown with specs of Black, Fine to medium Sand and silt, with some Brick, concrete, trace glass, coarse sands and fine gravels.	
	2-4	0.0	13:30		48/48		
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC SA-C SB-1

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-SA-E-SB-
		LOCATION: On Site, N: W	Elevation: / Total Depth: 4
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/29/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-18 3" stone	
	0-1	0.0	12:50			18-29 Reddish brown medium to c oarse sand and silt some fine sand and fine gravel	
	2-4	0.0	12:55		48/48	29-44 Reddish brown fine to medium sand and silt trace coarse sand	
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC SA-E SB-1

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-17-SB-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 C	DRILLER : Barry	FINISHED : 3/29/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	9:30		44-60	0-6 Loam 6-8 Brick 8-44 Brown medium to fine sand and silt,	
		0.0					
5		0.0					
	5-7	492	9:45		48/60	0-24 Reddish brown medium to fine sand and silt 24-48 Brown very fine to fine sand and silt, trace Coarse Sand	wet at 8'
		160					
10		181.0					
	12-14	#####	10:00		44/60	0-44 Reddish brown very fine sand and silt. Sheen with odor	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC 17 SB-1

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-17-SB-2
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/29/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION (NOTE: Depths read from top of recovered sample)	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	10:10		44-60	0-6 Loam 6-30 Brick and concrete 30-44 Reddish brown medium to fine sand and silt some coarse sands	
	2-4	0.0	10:30				
5							
		0.0			48/60	0-48 Reddish brown medium to fine sand and silt	wet at 8'
		0.0					
		0.0					
		0.0					
10		0.0					
					60/60	0-44 Reddish brown very fine sand and silt.	
15	14-16	148	10:45			44-60	
					48/60	0-48 Reddish brown Medium to coarse sand and silt, ODOR and SHEEN	
20	18-20	488	10:50				
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC 17 SB-2

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-24 MW-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/29/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION (NOTE: Depths read from top of recovered sample)	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	11:20		44-60	0-10 Loam and Sands	
						10-12 Yellow Brick	
	2-4	0.0	11:30			12-20 Brown medium to fine sands, some coarse sands	
						20-22 Red sand stone	Wet at 4.5
5	4-6	0:00	11:35			22-44 Black coal ash, coarseto fine grained	
					20-60	0-20 Brown fine to medium sands with organics	
10							
		0			60/60	0-40 Red brown silt, trace clay and very fine sand	
15	14-16	148	10:45			44-60	
20						Well set at 12' bgs	
						Screened 2-12 feet	
						1' sand	
						6" seal	
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC 24 MW-1

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-15 MW-3
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06	
DRILL RIG: 6600 (	DRILLER.: Barry	FINISHED : 3/30/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1	0.0	10:40		30/60	0-10 Brown fine to coarse sands and silts, some fine granvels	
	2-4	0.0	10:45			10-13 Reddish brown fine to medium sands trace gravel	
						13-15 Fractured rock	
						15-25 Black and brown fine to coarse sands, fine gravel trace, medium gravel, gl asphalt	Wet at 4.5
5	4-6	0:00	10:50			25-30 Dark brown medium to fine sand and silt, trace coarse sand and fine gravel	
					44/60	0-7 Dark brown medium to fine sand and silt, trace coarse sand and fine gravel	
		0.0				7-22 Dark brown medium to fine sand and silt, trace coarse sand and fine gra and wood	
10						22-44 Reddish brown fine to coarse sands and silts	
						0-54 Reddish brown fine to medium sands and silts, little coarse sands.	
		0.0			54/60	Well set 12'	
15							
20						Well set at 12' bgs	
						Screened 2-12 feet	
						1' sand	
						6" seal	
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]AOC 15 MW-3

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-1-SB-2
		LOCATION: On Site, N: W	Elevation: / Total Depth: 15
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/29/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
					40-60	0-22 Reddish brown fine to medium sand and silt 22-36 Black and white ash, with reddish brown fine to medium sands and silts. 36-40 reddish brown fine to medium sand and silt trace coarse sand	
	2-4	4.3	8:30				
5							
					24/60	0-23 Black OILY fine to coarse sands and silts, some cobbles Wet with odo wet at 8' 23-24 Reddish brown Fine to medium sands and silts.	
	8-10	14.5	8:32				
10							
	10-12	25.1	8:35		30/60	0-30 Dark Brown Medium to fine sand and silt with some coarse sands Sheen	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-2-SB-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION (NOTE: Depths read from top of recovered sample)	STRATIGRAPHIC DESCRIPTION
						0-2" Asphalt	
						2-12 Brown Medium- coarse sands and silts, trace brick	
						12-60 Redish brown medium to fine sand	
						60-66 Redish brown medium to fine sand	
5	5-6	152.0	12:20			66-72 Black silt and trace fine to meidum sand	
	6-8	581.0	11:45			0-30 Olive brown very fine sand and silt, strong odor.	
		123.0			40/48		
		53.4				30-40 Brown medium to fine sands and silts, some coars sands and fine gravel	
10							
		1.0				0-36 Brown medium to fine sands and silts, some coarse sands and fine grave trace medium gravel .	
		0.0					
		0.0			36/60		
		0.0					
15		0.0					
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-19-MW-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/30/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-24 3" stone	
	2-4	0.0	16:30			24-72 Lite brown medium to coarse sand some fine sand and silt, trace gravel	
5							
	5-7	0.0	16:00			0-18 Reddish brown medium to fine sand and silt	Wet at 5.5'
					36/60	18-36 Reddish brown medium to coarse sand some fine sand and silt, trace fin	
10							
		0.0					
					30-60	0-30 Reddish brown medium to coarse sand some fine sand and silt, trace fine gravel	
15							
						Well set at 13 feet below ground surface	
						Screen 3 to 13 feet	
						Seal at 2 feet .	
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-19-SB-2
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	2-4	0.0	9:15	3/29/06		0-24 3" stone 24-48 Brown fine to medium sands and silts, trace asphalt 48-72 Brown fine to medium sands and silts, trace asphalt, trace slag, and medium cobbles	
5							
	7-9	60.4	13:50	3/31/06	36/60	0-16 Reddish brown fine to coars sands and silts 16-30 Black Coarse to fine gravel, some medium to fine sands and silts. 30-36 Reddish brown fine to coarse sands and silts, trace fine gravel	Wet at 5.5'
10							
		0.0			44/60	0-44 Reddish brown fine to coarse sands and silts, trace fine cobbles and grav	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-19-SB-3
		LOCATION: On Site,	Elevation: / Total Depth: 15
		N: W	
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/31/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	2-4	0.0	9:15	3/29/06		0-24 3" stone 24-72 Brown medium to coarse sand, few cobbles, gravel	
5							
	8-10	0.0	13:35	3/31/06	44/60	0-22 Red brown Silt some clay. 22-44 Reddish brown fine to coarse sands and silts, trace fine gravel	Wet at 9'
10							
					36/60	0-36 Reddish brown medium to fine Sand and silt	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-5-SB-1
		LOCATION: On Site, N: W	Elevation: / Total Depth: 15
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/31/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-2 As, 3" stone	
	2-4	0.0	15:05	3/29/06		2-12 Brown medium to coarse sand trace brick	
						12-66 Brown Medium to coarse sand trace gravel, brick , and slag/coal	
5							
					35/60	0-35 olive brown fine to very fine sand and silt	Wet at 9'
						35-36 olive brown fine to very fine sand and silt, trace root material	
10							
	10-12	4.8	11:10	3/31/06	24/60	0-22 Reddish brown fine to coarse sand and silt, little fine gravel and small c	
						22-24 Reddish brown fine to medium sand and Silt, fractured rock dense	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-5-SB-2
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-2 As; 3" stone	
	2-4	0.0	15:05	3/29/06		2-6 Brown medium to coarse sand trace brick	
						6-66 Dark Brown Medium to coarse sand trace gravel, brick	
5							
						0-10 Yellow brown medium to fine sands	
						39018 Olive brown very fine sands and silt	
		158.0			36/60		
		160.0					
10	9-11	712.0		3/31/06		28-36 Brown Medium to fine sand and silt, trace coarse sand , fine gravel. OD	Wet at 10'
						0-2 Reddish Brown Silt and Very fine sand	
						2-18 Reddish brown fine to coarse sands and silt, some fine gravel. Loose	
					32/60	18-32 Reddish brown medium to fine sands and silts some coarse sands and fine gravel	
						Dense	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01 LOCATION: On Site, N: W	SHEET 1 of 1 BORING NO. AOC-SA-H-SB- Elevation: Total Depth: 7
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/30/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-2		9:55	3/31/06		0-3 3"stone	
	2-4		11:20	3/30/06		3-48 Reddish brown medium to fine sand and trace silt, stone fragments	
						48-60 Reddish brown fine sand and silt and 3 " stone	
5						60-84 Reddish brown medium to fine sand and trace silt, stone fragments	
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01 LOCATION: On Site, N: W	SHEET 1 of 1	BORING NO. AOC-15-SB-2
		Elevation:	Total Depth: 4
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/31/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1	2.4			100	0-12 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4	5.5			48/60	0-12 Reddish brown medium to fine sand and silt with coarse sand and fine gravel 12-20 Fractured Cobble 20-23 Crushed Asphalt 23-40 Reddish brown medium to fine sand and silt with coarse sand and fine grav Wet 4.5 trace fractured cobble 40-44 Brown fine to medium sand and silt	
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. RB-01
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	Elevation:	Total Depth: 4
	LOCATION: On Site, N: W		
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/31/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-24 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4	0.0			48-48		Wet @ 2.5 feet
						24/48 Brown fine to medium sand and silt	
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]RB-01

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. RB-02
	LOCATION: On Site, N: W	Elevation:	Total Depth: 4
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/31/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	2-4	0.0			48-48	0-24 Reddish brown medium to fine sand and silt with coarse sand and fine gravel 24/48 Brown fine to medium sand and silt	Wet @ 2.5 feet
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-15-SB-4
	LOCATION: On Site, N: W	Elevation:	Total Depth: 5
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/30/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1					0-8 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
						8-40 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4				44/60	trace fractured cobble	
						40-44 Brown fine to medium sand and silt	
5							Wet 4.5
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT :	Factory H		
SITE LOCATION:	77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1 / BORING NO. AOC-15-SB-5
		LOCATION: On Site, N: W	Elevation: / Total Depth: 5
DRILL CONTRACTOR :	Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06
DRILL RIG:	6600 (	DRILLER : Barry	FINISHED : 3/30/06
Hole Size : 2.25	Weather : Sunny 70's		Ground Water (Depth/Elev.) :
Drilling Method :		Drilling Fluid : None	Top of Rock (Depth/Elev.) :

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-1					0-8 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
						8-40 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4				46/60	trace fractured cobble	
						40-46 Brown fine to medium sand and silt	
5							Wet 4.5
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-11-SB-2
	LOCATION: On Site, N: W	Elevation:	Total Depth: 5
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/31/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/31/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
						0-4 Brown medium to fine sands, silts and medium gravel, (sub-base)	
						4-46 Reddish brown medium to fine sand and silt with coarse sand and fine gravel	
	2-4				46/60	trace fractured cobbles	
5							
10							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. AOC-SA-O-SB-
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	Elevation:	Total Depth: 10
	LOCATION: On Site, N: W		
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/29/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/29/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
	0-2				54/60	0-24 Brown medium to fine sands and silts, (newer material	
	2-4					24- 44 Reddish brown medium to fine sands and silts with some amounts of coarse sands and fine gravels	
5	4-6					44-54 Reddish brown medium to fine sands and silts with some amounts of coars	
					48/60	0-30 Reddish brown medium to fine sands and silts with some amounts of coarse sands	
10						30-48 reddish brown medium fine sands silts	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. AOC-11-MW-1
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/30	
DRILL RIG: 6600 C	DRILLER : Barry	FINISHED : 3/30/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION (NOTE: Depths read from top of recovered sample)	STRATIGRAPHIC DESCRIPTION
						0-6 pavement and sub base gravels	
	2-4	0.0			54/60	6-54 Reddish brown medium to coarse sand some fine sand and silt, trace gravel	
5							
	6-8				36/60	0-18 Reddish brown medium to fine sand and silt	Wet at 7
						18-36 Reddish brown medium to coarse sand some fine sand and silt, trace fin	
10							
		0.0			30-60	0-30 Reddish brown medium to coarse sand some fine sand and silt, trace fine gravel	
15							
						Well set at 14 feet below ground surface	
						Screen 4 to 14 feet	
						Seal at 3feet .	
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. AOC-19-MW-1
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	Elevation:	Total Depth: 15
	LOCATION: On Site, N: W		
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO : Jason Miller / Catie Nagel	BEGUN : 3/30/06	
DRILL RIG: 6600 (	DRILLER : Barry	FINISHED : 3/30/06	
Hole Size : 2.25	Weather : Sunny 70's	Ground Water (Depth/Elev.) :	
Drilling Method :	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
					54/60	0-6 pavement and sub base gravels 6-54 Reddish brown medium to coarse sand some fine sand and silt, trace gravel	
5							
					36/60	0-36 Reddish brown medium to fine sands and silt, trace fine gravel and coar	Wet at 6
10							
					32-60	0-32 Reddish brown medium to fine sand and siltl	
15							
						Well set at 13 feet below ground surface Screen 3 to 13 feet Seal at 3 feet .	
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
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GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. MW-100
	LOCATION: On Site, N: W	Elevation:	Total Depth: 19
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Chris/Lee	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~11.5'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			51"	9" Dark brown M Sand, some brick fragments and tan F sand (fill), moist 13" Reddish-brn M-F Sand, some silt and fine gravel, few rock fragments, mois 2" Burnt wood fragments, dry 11" Dark brn M-F Sand , wood and brick fragments, F tan (foundry) sand (fill), 4" Brick, dry 12" Fill (SAA)	This boring was move approximately 9x as refusal was encounter between 5.5-7.5' at each location.
5							
		0.0			49"	33" SAA (fill) plus asphalt and white rock fragments, moist 16" Reddish-brn F Sand &Silt, moist, compact	
10							
		0.0 53.0 0.0 0.0			58"	18" SAA (fill) 34" Reddish-brn F Sand & Silt, moist, compact 3" Rock fragments & Red M Sand, moist 3" Reddish-brn F Sand & Silt, moist, compact	Wet ~11.5'
15							
		19.2			58"	58" Reddish-brn C-VC flowing Sands, wet	
19							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. MW-101
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01		
	LOCATION: On Site, N: W	Elevation:	Total Depth: 33'
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Chris/Lee	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~12'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0				*No soil screening was performed from 0-15' *No soil screening was performed below 25' *MW installed to 33'	
5							
10							
15							Wet ~12'
		0.0			58"	58" Reddish-brn VC flowing Sands, wet	
20							
		8.5			58"	58" Reddish-brn VC flowing Sands, wet	
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. MW-102
	LOCATION: On Site, N: W	Elevation:	Total Depth: 19'
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Chris/Lee	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~12'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0				Hand dug to 2' - Dk brn M Sand, some rock & cobbles, moist	
2		0.0				10" Brn-dk brn F-M Sand, some rock & brick fragments, moist	
					21"	11" Dk brn-black M-C Sand, some fill (asphalt, brick, M gravel), moist	
5							
		0.0				7" SAA	
						16" Reddish-brn F Sand, trace silt & F-M sand, moist	
					55"	32" Reddish-orange F-M Sand, trace F gravel, moist	
10							
		0.0				Reddish-brn F-M Sand, wet at 12'	Wet at 12'
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. MW-103
	LOCATION: On Site, N: W	Elevation:	Total Depth: 17'
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Jay/Drew	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~10'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			36"	8" Dk brn M-F Sand, wood chips, moist 8" Reddish-brn F Sand, moist 5" Gray & white Fill (rock, spongy wood), moist 15" Reddish-brn F Sand, some wood fragments, moist	
5							
		0.0			42"	42" Reddish-brn F-M Sand, trace rock fragments, trace M gravel, moist	
10							Wet ~10'
		0.0			52"	52" Reddish-brn M-F Sand, wet	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. MW-104
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	Elevation:	Total Depth: 17'
	LOCATION: On Site, N: W		
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Jay/Drew	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~9'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			28"	4" Dk brn M Sand, moist 3" Tan brick fragments, dry 21" Reddish-brn M-F Sand, trace silt & F gravel, moist	
5							
		0.0			39"	19" Reddish-brn M-F Sand, trace silt & f gravel, moist 2" Black fill (asphalt) 4" Reddish-brn F-M Sand, moist 3" Black fill (asphalt) & rock 12" Reddish-brn F Sand, very moist	Wet ~9'
10							
		0.0			58"	58" Reddish-brn F Sand, wet	
15							
		0.0			58"	58" Reddish-brn F Sand, wet	
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

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Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H		SHEET 1 of 1	BORING NO. MW-105
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	Elevation:	Total Depth: 14'
	LOCATION: On Site, N: W		
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Jay/Drew	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~5-6'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			27"	19" Reddish-brn F-M Sand 8" Tan-brn F Sand & Fill (asphalt, rock, foundry sand, gravel), moist	
5							
		0.0			33"	6" Brn-Reddish brn F Sand, trace M gravel, wet 2" Tan Fill (brick, sand, asphalt, gravel), moist 7" Reddish-brn F-M Sand with trace silt & gravel, moist 17" Reddish-brn F-M Sand, some F gravel, moist to wet	Wet ~5-6'
10							
		0.0			42"	42" Reddish-brn M-VC Sand, fine gravel, wet	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]MW-105

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. MW-106
	LOCATION: On Site, N: W	Elevation:	Total Depth: 13'
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala .	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Jay/Drew	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) : ~6'	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			37"	17" Gray-dk brn F-M Sand, some fill material (sand, brick, asphalt), trace silt & F gravel, moist 3" Fill (asphalt, brown & white sand) 17" Reddish-brn F Sand & Silt, moist	
5							
		0.0			38"	22" Brn - dk brn F Sand, trace silt, moist 16" Reddish-brn M-VC Sand, some M gravel, wet	Wet ~6'
10							
		0.0			58"	13" Reddish-brn C Sand, wet 24" Reddish-brn F Sand, wet	
13							
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard	Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]MW-106

Metcalf & Eddy, Inc.
ENGINEERS

GEOLOGIC LOG

METCALF & EDDY

PROJECT : Factory H			
SITE LOCATION: 77 Cooper St, Meriden CT	JOB NO.: # 60004878.01	SHEET 1 of 1	BORING NO. MW-107
	LOCATION: On Site, N: W	Elevation:	Total Depth: 15
DRILL CONTRACTOR : ADT	ENG/GEO : Sarah Perhala	BEGUN : 11/23/2006	
DRILL RIG: Track	DRILLER : Jay/Drew	FINISHED : 11/23/2006	
Hole Size : 2"	Weather : Low 50's Overcast	Ground Water (Depth/Elev.) :	
Drilling Method : Geoprobe	Drilling Fluid : None	Top of Rock (Depth/Elev.) :	

Depth (ft)	Sample Type/No.	PID (ppm)	Time	Blow Counts # per 6"	Sample Recovery or REC & RQD	SAMPLE DESCRIPTION NOTE: Depths read from top of recovered sample	STRATIGRAPHIC DESCRIPTION
		0.0			24"	8" Black M Sand, rock fragments & asphalt, dry 3" Fill (foundry sand, brown M sand), moist 5" Brick, dry 8" brn to reddish-brn M-F Sand, some F gravel, trace silt, moist	
5							Wet ~5.5-6'
		15.4			43"	4" Reddish-brn F-M Sand, trace brick, moist 21" Reddish-brn F Sand, Silt, wet (soft) 10" Gray F Sand & Silt, wet (soft) 3" Gray & tan & brown F Sand, trace silt, some F gravel, moist 5" Reddish-brn M-F Sand, very moist	6-8' 114 ppm in ziploc 8-9' 146 ppm in ziploc
		44.3					
		64.4					
		63.3					
10							
		15.2			33"	33" Reddish-brn M Sand, wet	
15							
20							
25							

SAMPLE TYPES: SS=SPLIT SPOON ST=SHELBY TUBE R=ROCK CORE	Trace 0 to 5% Few 5 to 10% Little 15 to 25% Some 30 to 45%	SPT Resistance Cohesionless Density: 0-4 V. Loose 5-9 Loose 10-29 Med. Dense 30-49 Dense 50+ V. Dense	Cohesive Consistency: 0-2 V. Soft 3-4 Soft, 5-8 M/Stiff, 9-15 Stiff 16-30 V. Stiff, 31+ Hard

Approved/Date

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[Soil Boring Logs.xls]MW-107

MONITORING WELL COMPLETION LOGS

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

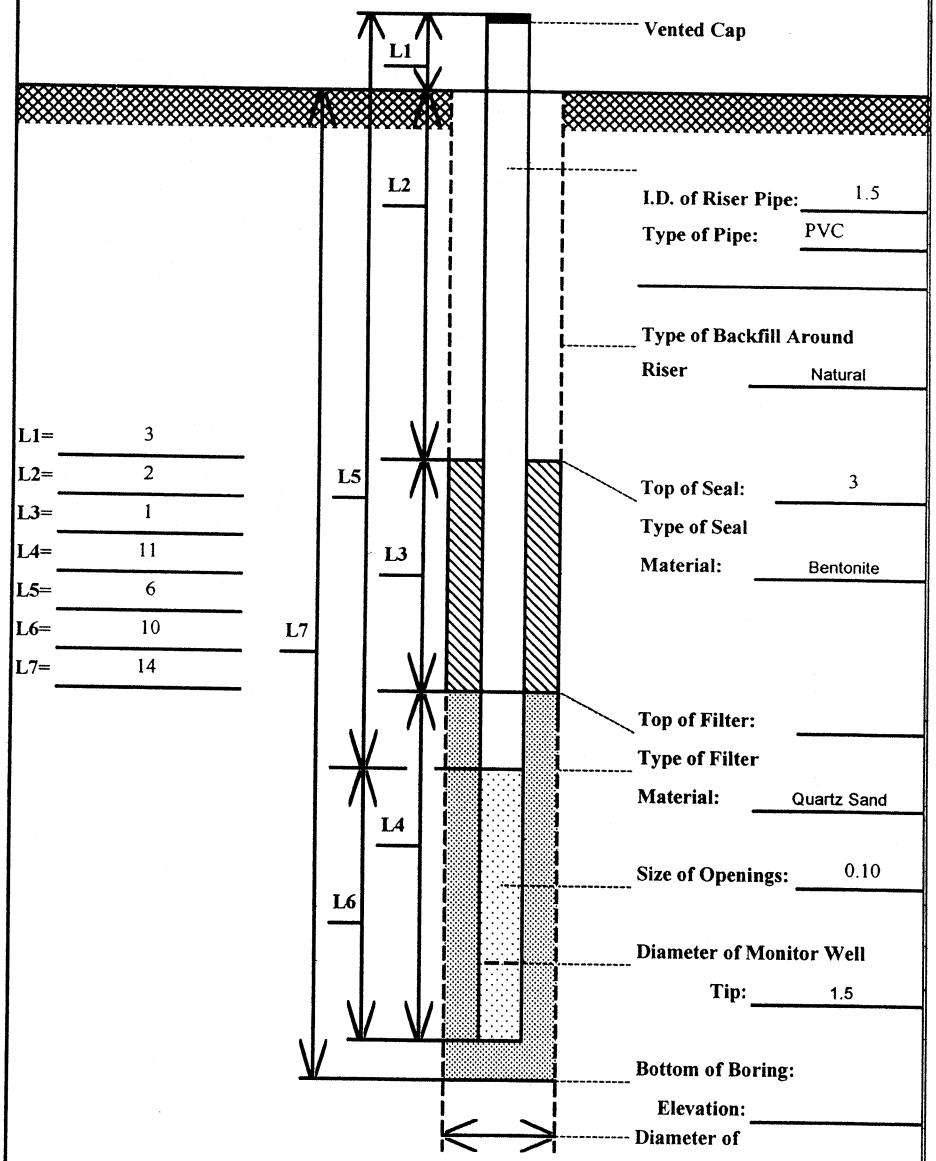
PROJECT : Factory H		SHEET 1 of 1	WELL NO. AOC- 11-MW-1
SITE LOCATION 10 Prospect Drive Newtown CT	JOB NO: 36800786 LOCATION: On site N: E:		Elevation: / Total Depth: 14
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/30/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
_2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_____ Road Box
__1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	3
L2=	2
L3=	1
L4=	11
L5=	6
L6=	10
L7=	14

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 11 MW-1

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

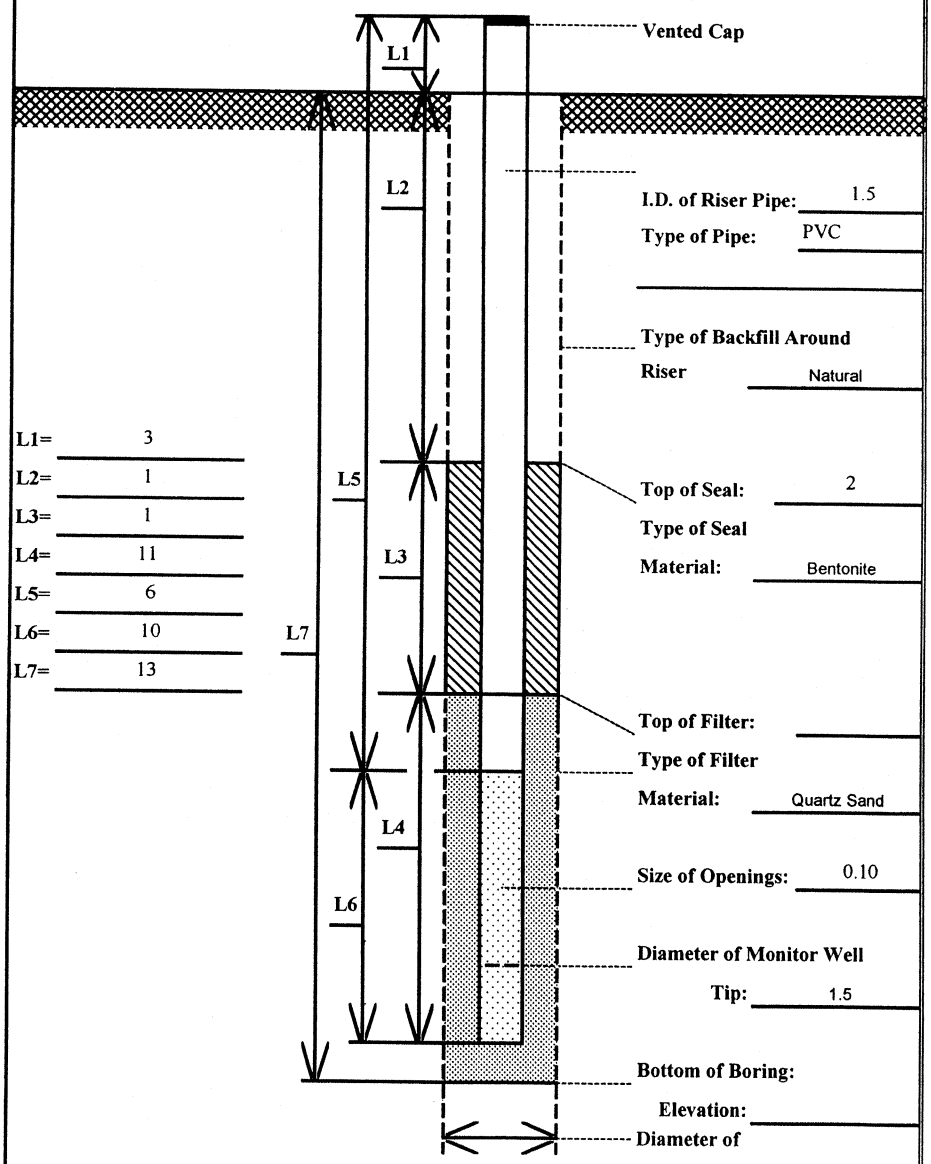
PROJECT : Factory H		SHEET 1 of 1	WELL NO. AOC- 19-MW-1
SITE LOCATION 10 Prospect Drive Newtown CT	JOB NO: 36800786 LOCATION: On site N: E:		Elevation: / Total Depth: 13
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/30/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
_2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_____ Road Box
__1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1= 3
L2= 1
L3= 1
L4= 11
L5= 6
L6= 10
L7= 13

Vented Cap

I.D. of Riser Pipe: 1.5
Type of Pipe: PVC

Type of Backfill Around Riser: Natural

Top of Seal: 2
Type of Seal Material: Bentonite

Top of Filter: _____
Type of Filter Material: Quartz Sand

Size of Openings: 0.10

Diameter of Monitor Well Tip: 1.5

Bottom of Boring: Elevation: _____

Diameter of Boring: 3"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 19 MW-1

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

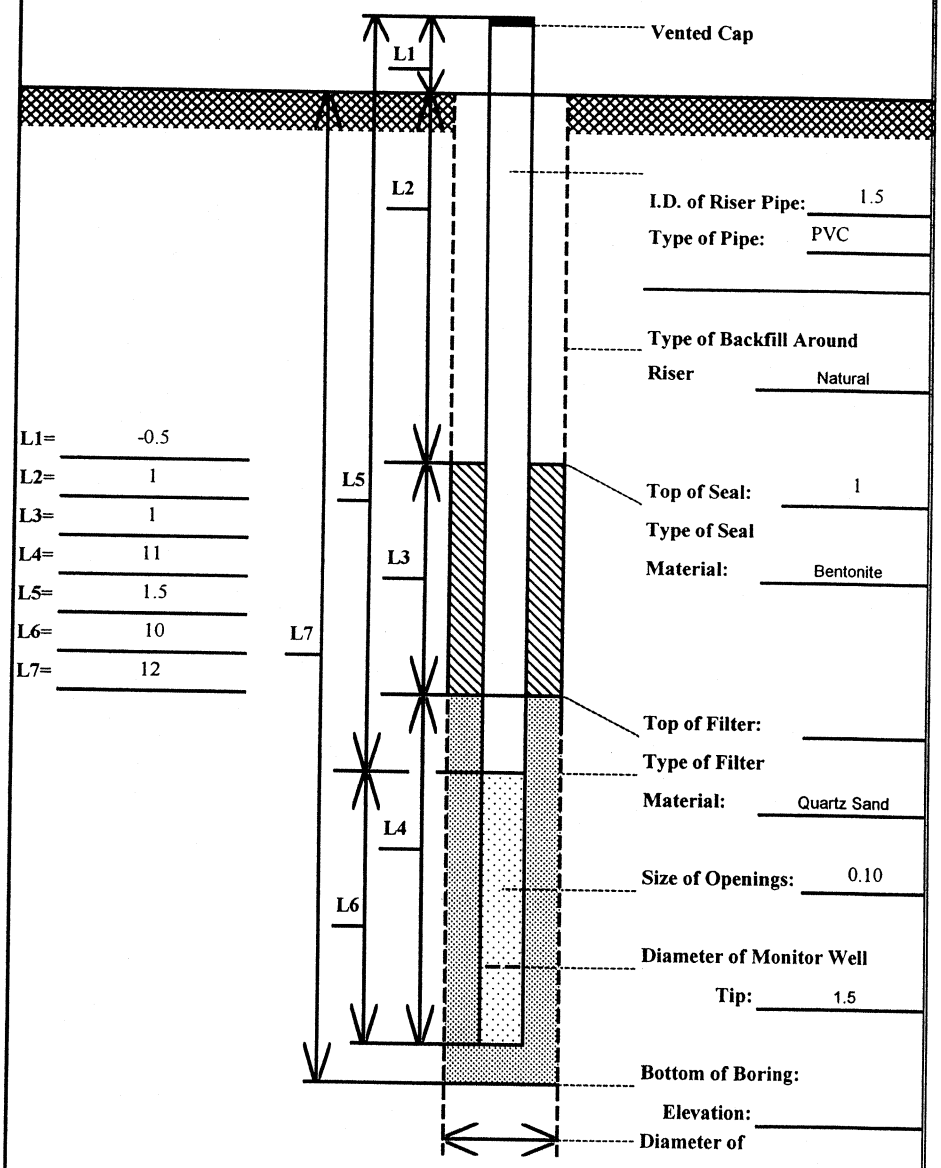
PROJECT : Factory H		SHEET 1 of 1	WELL NO. AOC- 24-MW-1
SITE LOCATION 10 Prospect Drive Newtown CT	JOB NO: 36800786 LOCATION: On site N: E:		Elevation: / Total Depth: 12
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/29/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
__2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_1__ Road Box
____ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	-0.5
L2=	1
L3=	1
L4=	11
L5=	1.5
L6=	10
L7=	12

I.D. of Riser Pipe: 1.5
Type of Pipe: PVC

Type of Backfill Around Riser: Natural

Top of Seal: 1
Type of Seal Material: Bentonite

Top of Filter: _____
Type of Filter Material: Quartz Sand

Size of Openings: 0.10

Diameter of Monitor Well Tip: 1.5

Bottom of Boring: Elevation: _____

Diameter of Boring: 3"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 24 MW-1

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

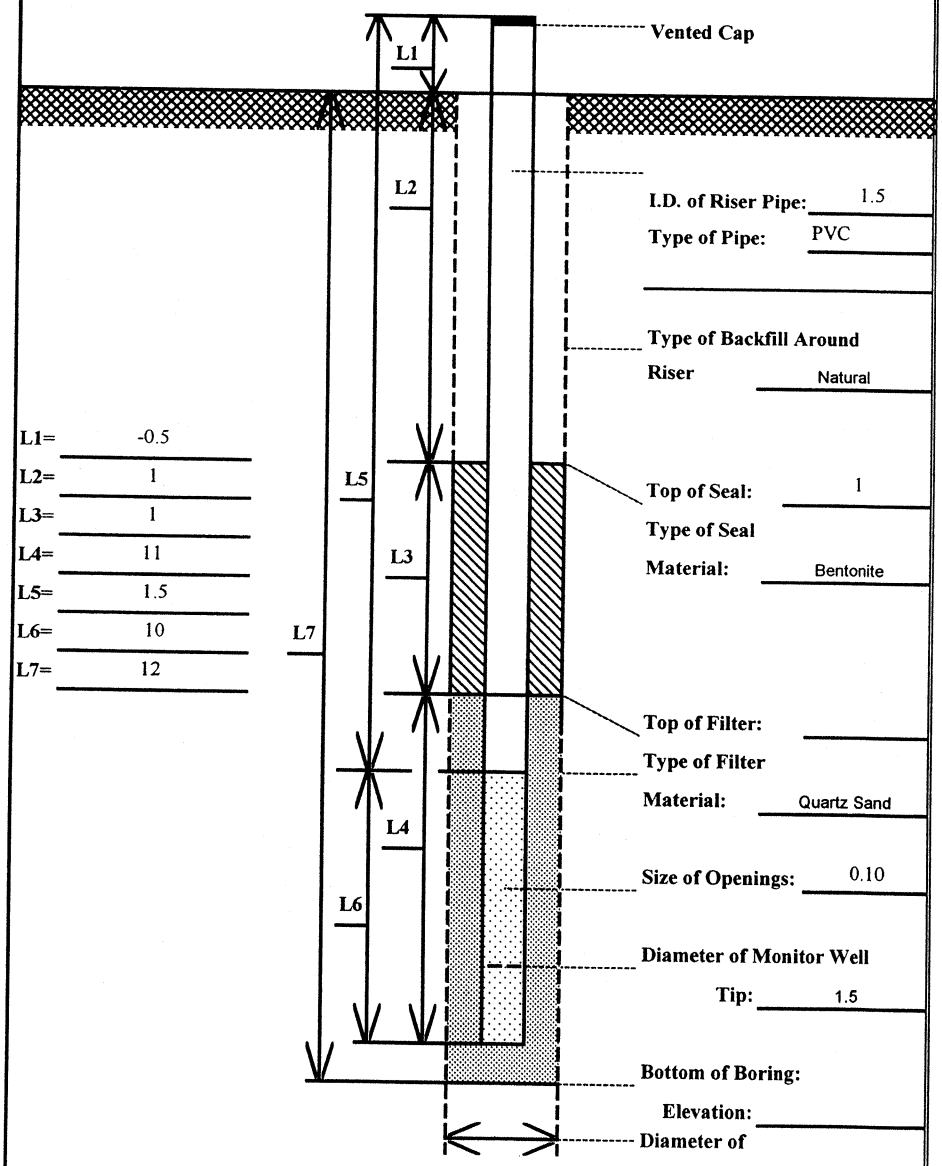
PROJECT : **Factory H**		SHEET 1 of 1	WELL NO. **AOC- 15-MW-3**
SITE LOCATION **10 Prospect Drive** Newtown CT	JOB NO: **36800786**		
	LOCATION: On site N: E:		Elevation: / Total Depth: 12
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/30/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
_2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_1__ Road Box
____ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	-0.5
L2=	1
L3=	1
L4=	11
L5=	1.5
L6=	10
L7=	12

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 15 MW-3

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

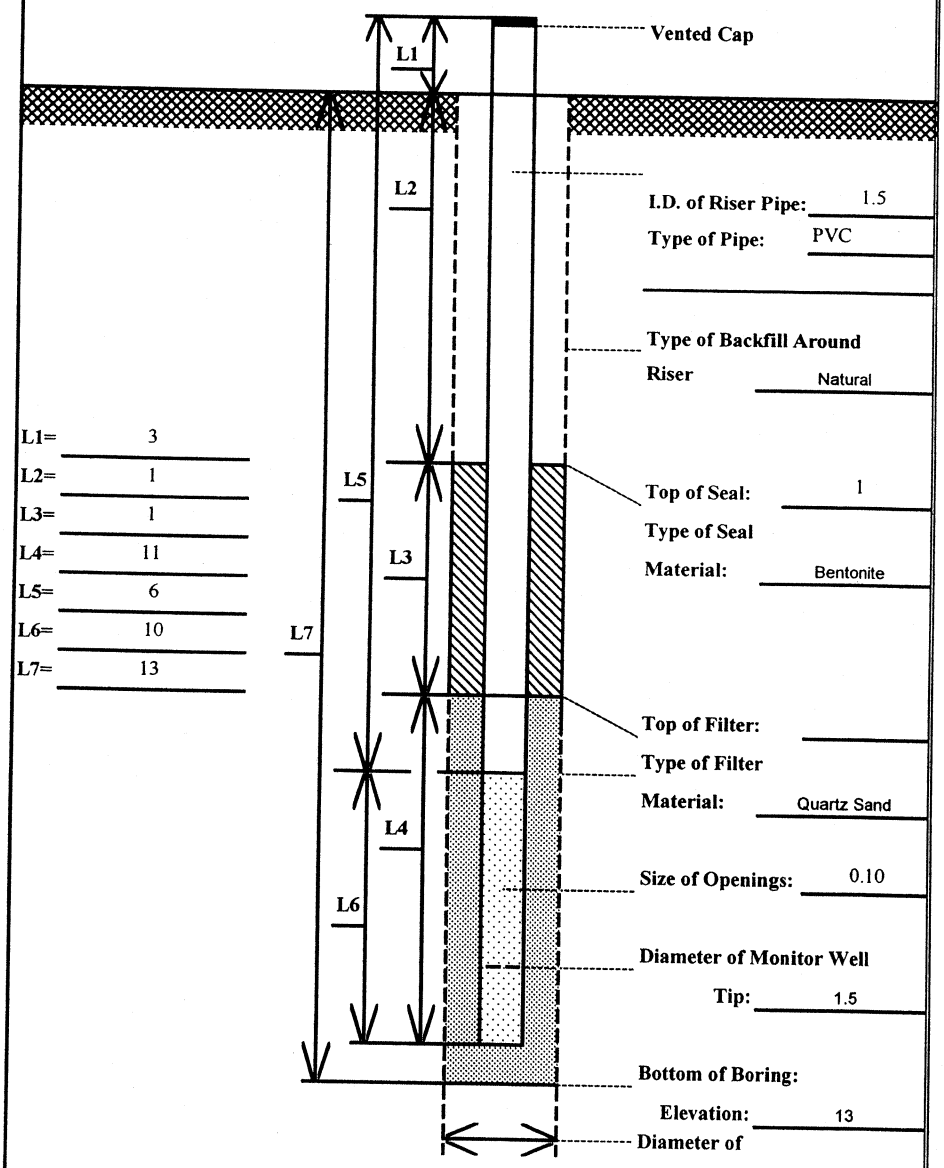
PROJECT : Factory H		SHEET 1 of 1	WELL NO. AOC- 30-MW-1
SITE LOCATION 10 Prospect Drive Newtown CT	JOB NO: 36800786 LOCATION: On site N: E:		Elevation: / Total Depth: 13
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/30/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
__2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_1__ Road Box
____ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	3
L2=	1
L3=	1
L4=	11
L5=	6
L6=	10
L7=	13

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 30 MW-1

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

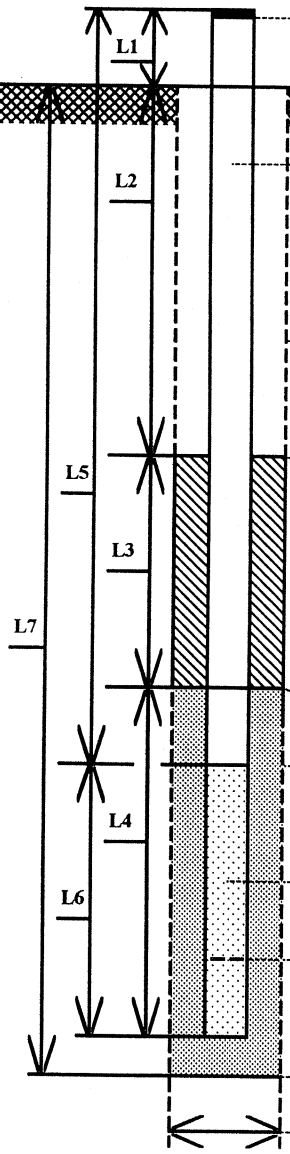
PROJECT : **Factory H**		SHEET 1 of 1	WELL NO. **AOC- 3-MW-1**
SITE LOCATION **10 Prospect Drive** Newtown CT	JOB NO: **36800786**		
	LOCATION: On site		Elevation: / Total Depth: 13
	N:	E:	
DRILL CONTRACTOR : Glacier Drilling	ENG/GEO: Jason Miller	DRILLER : Barry	DATE : 3/31/06
INSTALLATION METHOD: 6600 geoprobe			TIME :
TYPE OF MONITORING WELL			Ground Water (Depth/Elev.) :

MATERIALS USED

1.5_ " Screen (PVC) 10'
1.5 " Riser (PVC) 6'
_2_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_1__ Road Box
____ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	3
L2=	1
L3=	1
L4=	11
L5=	6
L6=	10
L7=	13

Vented Cap

I.D. of Riser Pipe: 1.5
Type of Pipe: PVC

Type of Backfill Around Riser Natural

Top of Seal: 1
Type of Seal Material: Bentonite

Top of Filter: _____
Type of Filter Material: Quartz Sand

Size of Openings: 0.10

Diameter of Monitor Well Tip: 1.5

Bottom of Boring: Elevation: 13

Diameter of Boring: 3"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\[WellConstruction.xls]AOC 3-MW-1

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

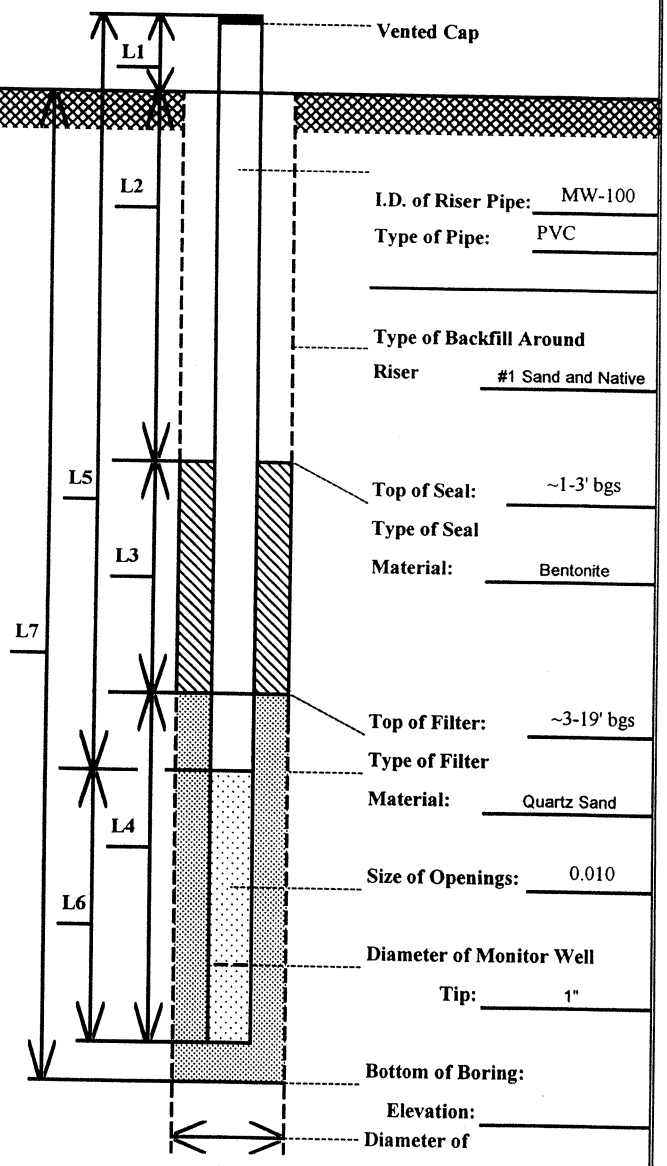
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-100
SITE LOCATION 77 Cooper Street Meriden CT	JOB NO: 60004878		
	LOCATION: On site N: E:		Elevation: / Total Depth: 19'
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Chris/Lee	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : 11.5'

MATERIALS USED

10' #40 PVC Riser (1")
10' 0.010Slot Screen (1")
0.5 bags #1 Sand
1-- End Point
1 ---Well Cap
_____ Road Box
__1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	~1'
L2=	~1'
L3=	~2'
L4=	~16'
L5=	10'
L6=	10'
L7=	19'

I.D. of Riser Pipe: MW-100
Type of Pipe: PVC

Type of Backfill Around Riser: #1 Sand and Native

Top of Seal: ~1-3' bgs
Type of Seal Material: Bentonite

Top of Filter: ~3-19' bgs
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation: _____

Diameter of Boring: 2"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-100

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

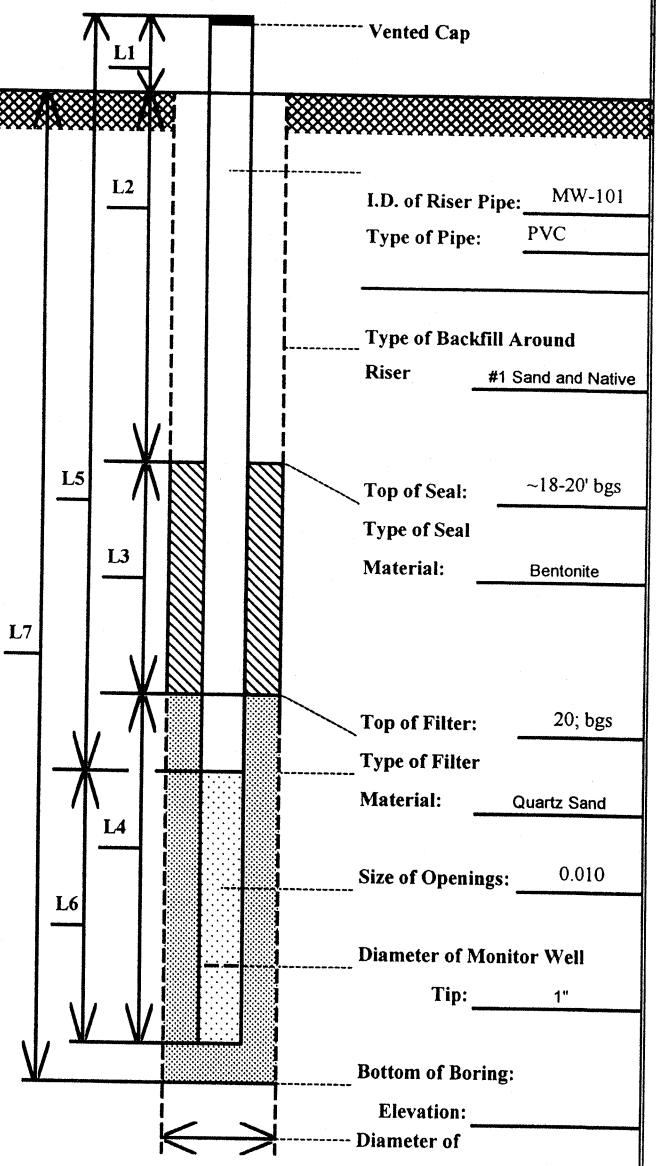
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-101
SITE LOCATION 77 Cooper Street, Meriden CT	JOB NO: 60004878		
	LOCATION: On site N: E:		Elevation: / Total Depth: 33'
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Chris/Lee	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~12'

MATERIALS USED

23' #40 PVC Riser (1")
10' 0.010 Slot Screen (1")
_1_ Bags of Well Sand
1-- End Point
1 ---Well Cap
_____ Road Box
_1_ Protector, Stick up
_1_ Bags of Concret
_.25_ Bucket of Bentonite

Ground Elevation :

Top of Riser Elevation :



L1=	~3'
L2=	~18'
L3=	2'
L4=	13'
L5=	23'
L6=	10'
L7=	33'

Vented Cap

I.D. of Riser Pipe: MW-101
Type of Pipe: PVC

Type of Backfill Around Riser: #1 Sand and Native

Top of Seal: ~18-20' bgs
Type of Seal Material: Bentonite

Top of Filter: 20; bgs
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation:

Diameter of Boring: 2"

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-101

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

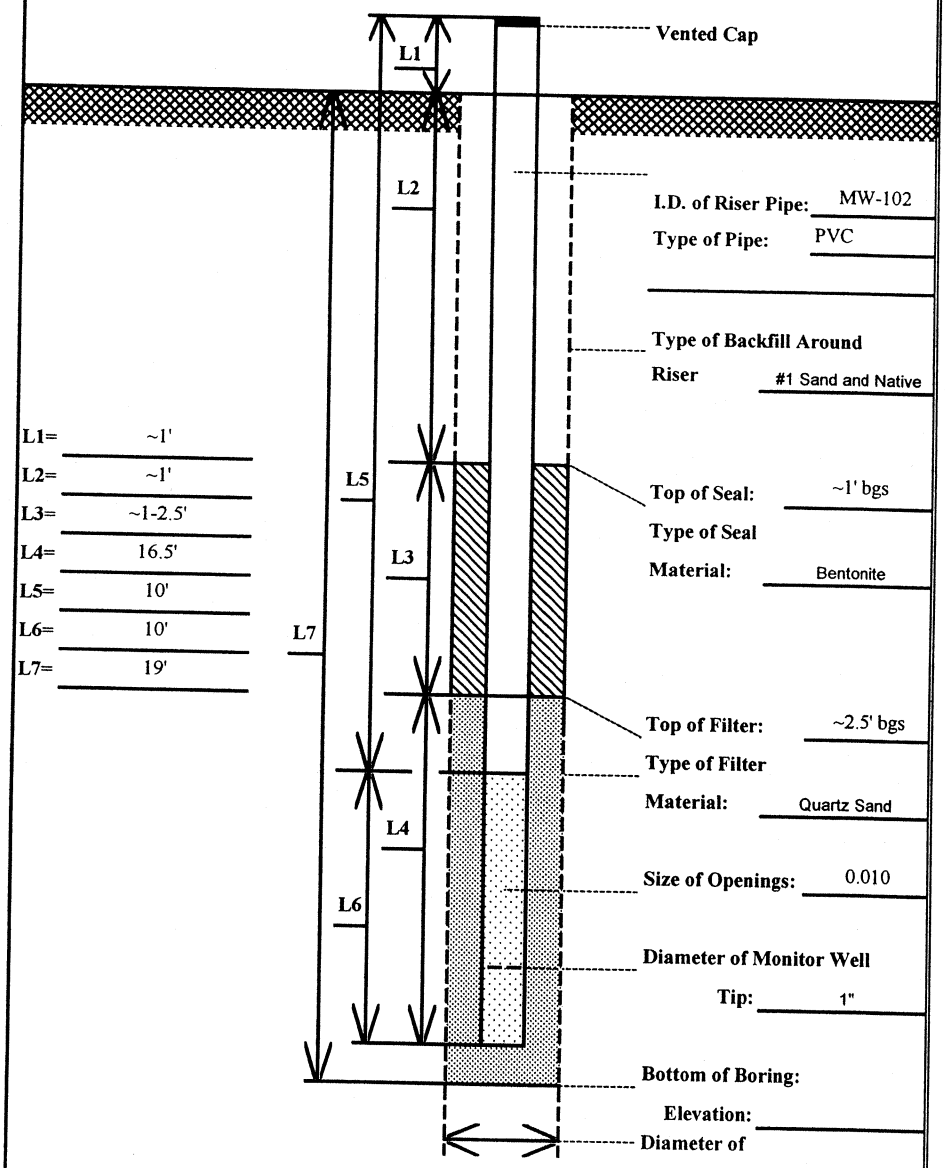
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-102
SITE LOCATION 77 Cooper Street, Meriden CT	JOB NO: 60004878		
	LOCATION: On site		Elevation: / Total Depth: 19'
	N: E:		
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Chris/Lee	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~12'

MATERIALS USED

10' #40 PVC Riser (1")
10' 0.010 Slot Screen (1")
__0.5__ Bags of Well Sand
1-- End Point
1 --Well Cap
___ Road Box
__1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	~1'
L2=	~1'
L3=	~1-2.5'
L4=	16.5'
L5=	10'
L6=	10'
L7=	19'

I.D. of Riser Pipe: MW-102
Type of Pipe: PVC

Type of Backfill Around Riser #1 Sand and Native

Top of Seal: ~1' bgs
Type of Seal Material: Bentonite

Top of Filter: ~2.5' bgs
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation: _____

Diameter of Boring: 2"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-102

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

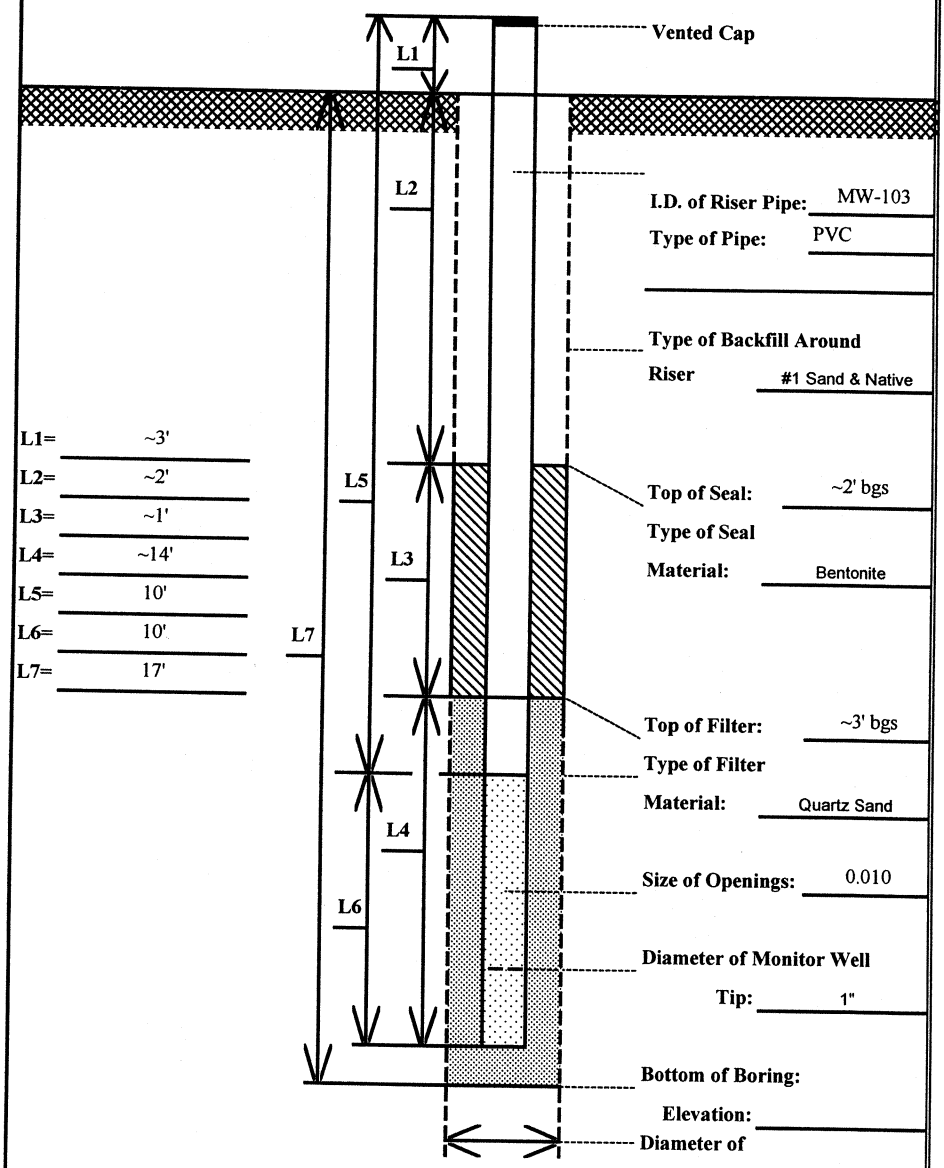
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-103
SITE LOCATION 77 Cooper Street, Meriden CT	JOB NO: 60004878		
	LOCATION: On site N: E:		Elevation: / Total Depth: 17'
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Jay/Drew	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~10'

MATERIALS USED

10' #40 PVC Riser (1")
10' 0.010 Slot Screem (1")
__0.75_ Bags of Well Sand
1-- End Point
1 ---Well Cap
___ Road Box
__1_ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	~3'
L2=	~2'
L3=	~1'
L4=	~14'
L5=	10'
L6=	10'
L7=	17'

Vented Cap

I.D. of Riser Pipe: MW-103
Type of Pipe: PVC

Type of Backfill Around Riser: #1 Sand & Native

Top of Seal: ~2' bgs
Type of Seal Material: Bentonite

Top of Filter: ~3' bgs
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation: _____

Diameter of Boring: 2"

REMARKS : _____

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-103

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

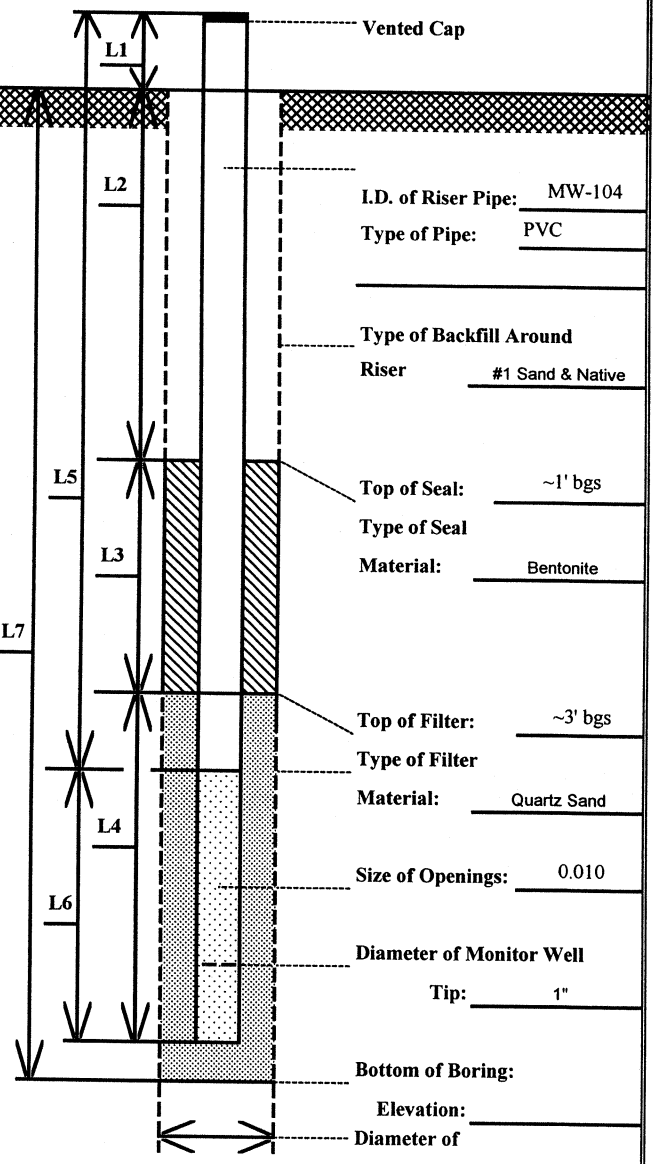
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-104
SITE LOCATION 77 Cooper Street Meriden CT	JOB NO: 60004878		
	LOCATION: On site N: E:	Elevation:	Total Depth: 17'
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Jay/Drew	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~9'

MATERIALS USED

1_ " 0.010 Screen (PVC) 10'
1 " Riser (PVC) 10'
__0.75_ Bags of Well Sand
1-- End Point
1 ---Well Cap
___ Road Box
__1_ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	3'
L2=	~1'
L3=	~2'
L4=	~14'
L5=	10'
L6=	10'
L7=	17'

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-104

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

Metcalf & Eddy

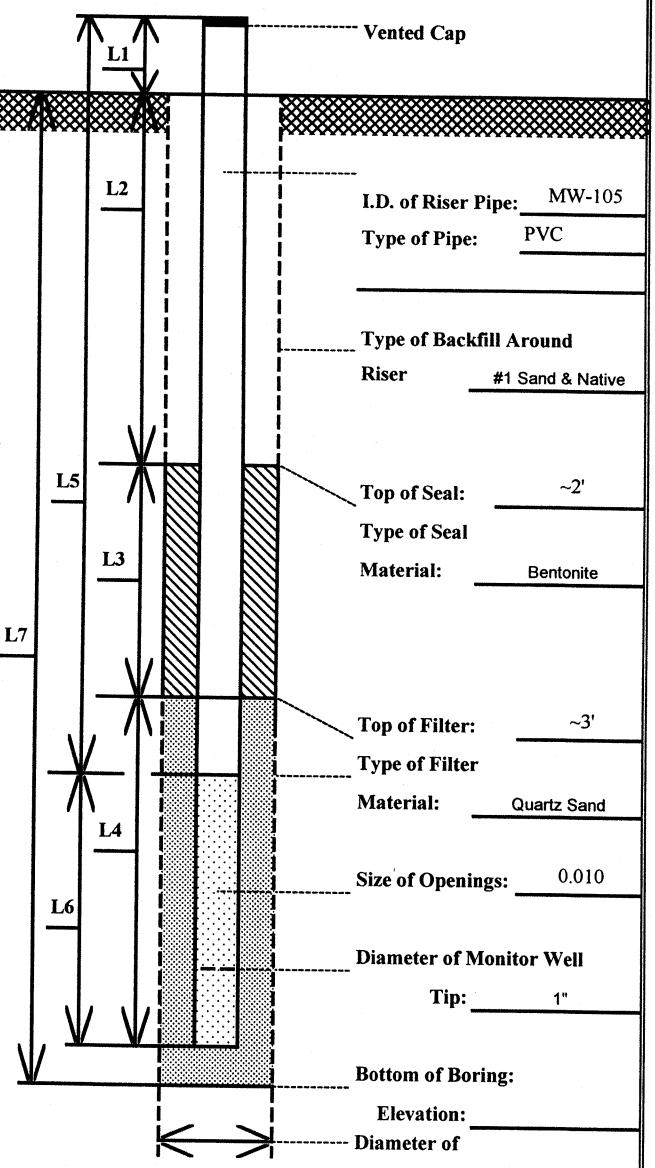
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-105
SITE LOCATION 77 Cooper Street, Meriden CT	JOB NO: 60004878		
	LOCATION: On site		Elevation: / Total Depth: 14'
	N:	E:	
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Jay/Drew	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~5-6'

MATERIALS USED

1_ " Screen (PVC) 10'
1 " Riser (PVC) 7'
_0.75_ Bags of Well Sand
1-- End Point
1 ---Well Cap
___ Road Box
__1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation :

Top of Riser Elevation :



L1=	3'
L2=	~2'
L3=	~1'
L4=	~11'
L5=	7'
L6=	10'
L7=	14'

I.D. of Riser Pipe: MW-105
Type of Pipe: PVC

Type of Backfill Around Riser: #1 Sand & Native

Top of Seal: ~2'
Type of Seal Material: Bentonite

Top of Filter: ~3'
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation:

Diameter of Boring: 2"

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-105

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

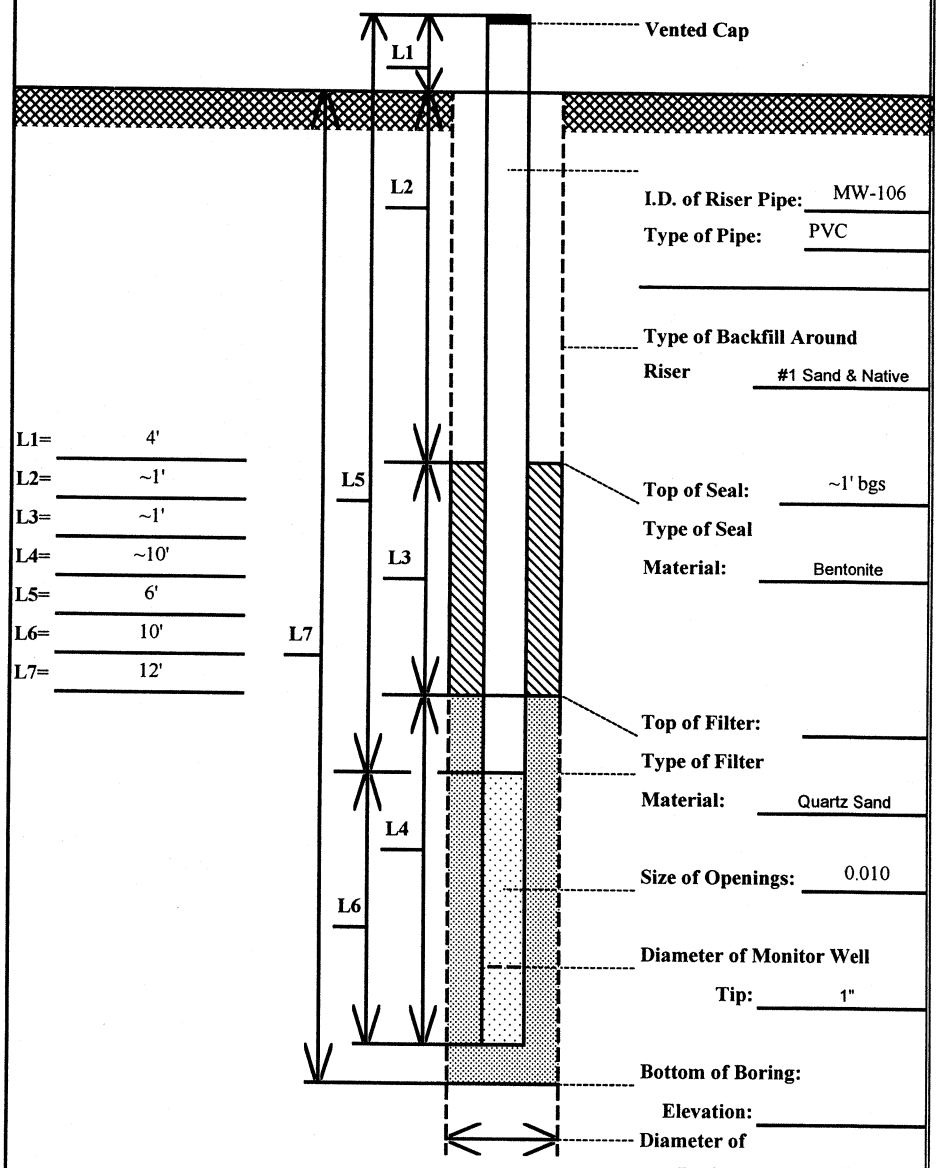
PROJECT : **Factory H**		SHEET 1 of 1	WELL NO. **MW-106**
SITE LOCATION	JOB NO: **60004878**		
77 Cooper Street	LOCATION: On site		Elevation: / Total Depth: 12'
Meriden CT	N:	E:	
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Jay/Drew	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~6'

MATERIALS USED

1_ " Screen (PVC) 10'
1 " Riser (PVC) 6'
__0.75_ Bags of Well Sand
1-- End Point
1 ---Well Cap
___ Road Box
_1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation : _____

Top of Riser Elevation : _____



L1=	4'
L2=	~1'
L3=	~1'
L4=	~10'
L5=	6'
L6=	10'
L7=	12'

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-106

Metcalf & Eddy, Inc.
ENGINEERS

MONITORING WELL CONSTRUCTION DETAIL

M&E Metcalf & Eddy

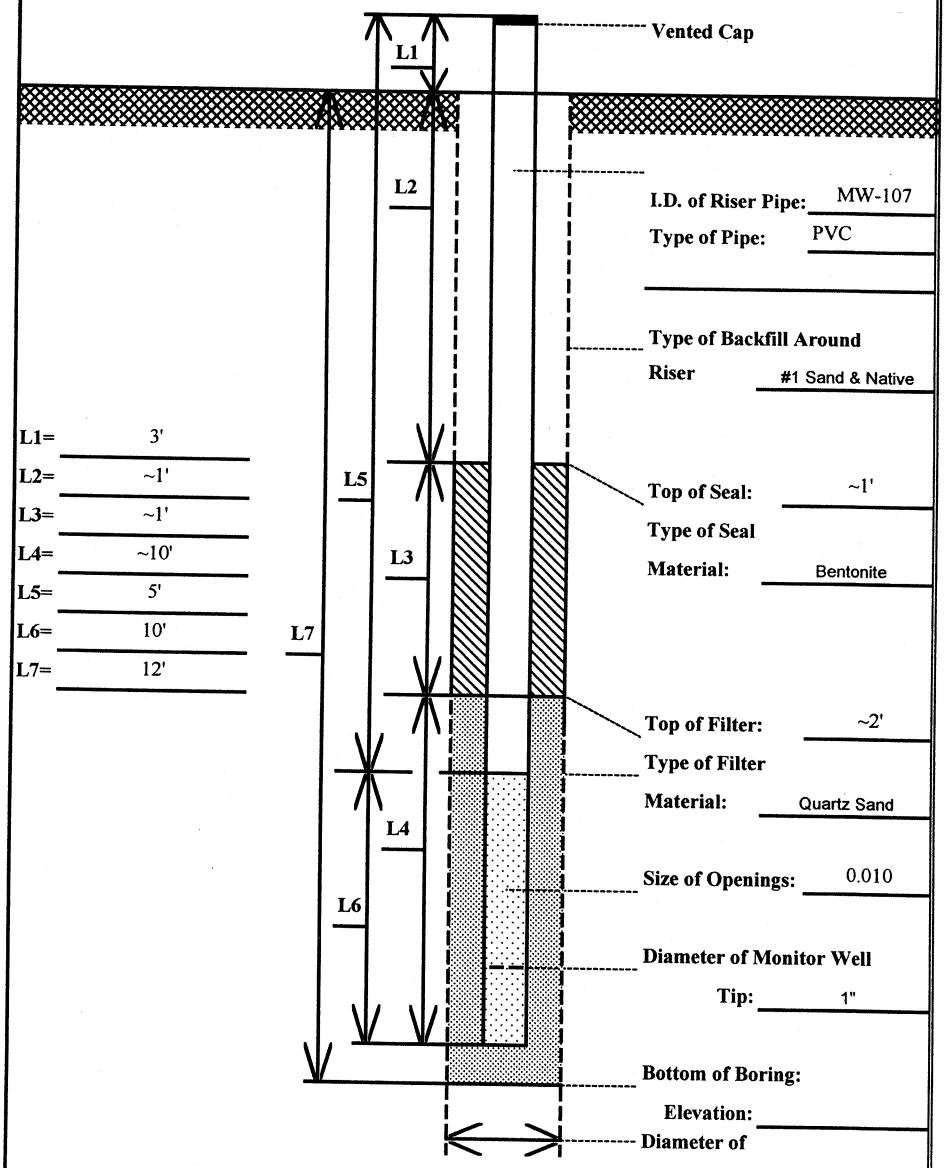
PROJECT : Factory H		SHEET 1 of 1	WELL NO. MW-107
SITE LOCATION 77 Cooper Street, Meriden CT	JOB NO: 60004878		
	LOCATION: On site		Elevation: / Total Depth: 12'
	N:	E:	
DRILL CONTRACTOR : ADT	ENG/GEO: Sarah Perhala	DRILLER : Jay/Drew	DATE : 11/23/06
INSTALLATION METHOD: Geoprobe			TIME :
TYPE OF MONITORING WELL	1" Monitoring Well		Ground Water (Depth/Elev.) : ~5.5-6'

MATERIALS USED

1_ " Screen (PVC) 10'
1 " Riser (PVC) 5'
_0.75_ Bags of Well Sand
1-- End Point
1 ---Well Cap
___ Road Box
_1__ Protector, Stick up
__1__ Bags of Concret
__.25__ Bucket of Bentonite

Ground Elevation :

Top of Riser Elevation :



L1= 3'
L2= ~1'
L3= ~1'
L4= ~10'
L5= 5'
L6= 10'
L7= 12'

I.D. of Riser Pipe: MW-107
Type of Pipe: PVC

Type of Backfill Around Riser: #1 Sand & Native

Top of Seal: ~1'
Type of Seal Material: Bentonite

Top of Filter: ~2'
Type of Filter Material: Quartz Sand

Size of Openings: 0.010

Diameter of Monitor Well Tip: 1"

Bottom of Boring: Elevation:

Diameter of Boring: 2"

REMARKS :

X:\60004878 (Factory H)\Phase II and III\Boring Logs and well constructions\VOC Plume Study\[WellConstructionFACTORY H.xls]MW-107

WELL SAMPLING DATA SHEETS

Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-1
Sample Time 15 15
Page of
Date 4-17-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Riser PVC SS
Protector PVC SS
PID 2000/370

Diameter of Well 2"

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	13.83	
Depth to Bottom(in hundredths of a foot)	14.18	

Purging Device; (pump type): Peristaltic pump

Weather: Sunny 60's

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1450	14.3	113			14.23	572	7.68	-292.8	1.59	3.7	Bubbles in tubing
1500					13.85	560	7.14	-295.0	.96	3.1	"
1505					13.86	565	7.05	-292.0	.91	1.4	"
1510					14.09	571	7.02	-293.1	.80	1.1	
1515					14.19	571	7.00	-291.9	.73	0.8	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Sample VOCs at Top of Product w/ fingerprint 8oz jar.

Field Personnel
Jason Miller

Signature of Sampler

will sample VOC's + metals after stabilized.

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-8
Sample Time 1345
Page of
Date 9-17-06

Project Name
Project Number
Location (Site/Facility Name): Factory H
60004878
Meriden CT
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Riser PVC SS
Protector PVC SS
PID 0

Diameter of Well 2"

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(In hundredths of a foot)	8.50	
Depth to Bottom(In hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1315	852	43			1203	694	7.36	-285.6	4.50	2.9	
1320					1152	637	7.34	-268.1	2.86	.2	
1325					1166	640	7.46	-265.8	2.41	.1	
1330					1160	637	7.47	-246.9	2.38	.3	
1335					1178	639	7.57	-241.6	2.34	.2	
1340					1200	641	7.56	-242.4	2.28	.1	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler

Groundwater Low Flow Field Sampling Form

M&E Metcalf & Eddy

Well # AOC 11 - MW-1
Sample Time 1200
Page of
Date 4-17-06

Project Name Factory H
Project Number 60004878
Location (Site/Facility Name): Meriden CT
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Riser PVC SS
Protector PVC SS
PID 28' 2.1

Diameter of Well 1.5'

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	9 21	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1135	921	1/3			894	185	6.45	-254.1	2.18	24.8	
1140	921	1/3			883	210	6.31	-248.6	1.18	18.7	
1145	922	1/3			872	226	6.31	-264.1	0.85	12.9	
1150	924	1/3			874	236	6.34	-263.1	0.65	10.6	
1155	924	1/3			889	243	6.36	-271.1	0.63	8.4	
1200	924	1/3			887	247	6.37	-271.0	0.61	7.0	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler J. H. Miller

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # FCC19 MW-1
Sample Time 1045
Page of
Date 4-17-06

Project Name
Project Number
Location (Site/Facility Name): Factory H
Pump Intake depth (ft below MP): 60004878
Identify Measuring Point (MP): Meriden CT

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	1038	
Depth to Bottom(in hundredths of a foot)		

Riser PVC SS
Protector PVC SS
PID 380 in well 5.6 At top of Riser

Diameter of Well 1.5"

Purging Device; (pump type): Peristaltic pump

Weather: Sunny 50's

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1020	1038	1/3	120		11.76	525	7.07	-264.1	4.48	9.1	
1025	1041				11.57	530	6.97	-258.1	1.15	2.3	
1030	1041				11.48	529	7.00	-257.1	1.08	1.1	
1035	1041				11.97	531	7.03	-259.1	0.92	.4	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler J. H. Miller

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Groundwater Low Flow Field Sampling Form

M&E Metcalf & Eddy

Well # AOC-15-MW-1
Sample Time 915
Page of
Date 4-17-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Diameter of Well 1.5"

Riser PVC SS
Protector PVC SS
PID 230

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	7.21	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
840	7.21	13			9.86	415	678	-242.1	4.83	34.1	
845					9.80	412	672	-258	4.83	26.1	
850					9.93	413	670	-258.9	4.69	22.1	
855					9.88	412	664	-280.1	4.51	15.1	
900					9.82	413	661	-284.1	4.33	10.4	
905					9.90	414	660	-287.5	4.30	9.27	
910					10.00	417	658	-272.1	4.28	9.27	
915					9.99	416	659	-280.1	4.29	9.00	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # ADC-30-MW1
Sample Time 745
Page of
Date 4-19-06

Project Name Factory H
Project Number 60004878
Location (Site/Facility Name): Meriden CT
Pump Intake depth (ft below MP):
Identify Measuring Point (MP): Riser PVC SS; Protector PVC SS; PID

Diameter of Well 1.5"

Purging Device; (pump type): Peristaltic pump

Weather: Sun. ~~Mid~~ 45-50

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	9.67	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 -309 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
710											
720	1000	13			9.48	790	6.77	2.07	2.65	2.0	
727	1108				9.34	699	6.65	-291.1	2.61	2.4	
732					9.53	680	6.94	-296.1	2.07	2.0	
737					9.53	786	7.00	-270.1	2.03	2.5	
742					9.56	784	7.01	-271.0	1.91	2.0	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Well went Dry

Field Personnel
Jason Miller

Signature of Sampler

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW 14
Sample Time 1420
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Date 4-14-06

Project Name
Project Number
Location (Site/Facility Name): Factory H
Pump Intake depth (ft below MP): 60004878
Identify Measuring Point (MP): Meriden CT

Diameter of Well 2"

Riser PVC SS
Protector PVC SS
PID 0

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	6.37	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1400	6.37	1/3			12.33	284	7.68	67.5	9.60	1.9	
1405	↑	↓			12.12	282	7.38	179	9.13	.4	
1410					12.08	282	7.33	248.4	9.00	.5	
1415					12.01	282	7.35	268.1	9.00	.5	
1420	↓	↓			11.99	281	7.35	280.1	8.94	.5	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler

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Groundwater Low Flow Field Sampling Form

Plus DUP

M&E Metcalf & Eddy

Well # MW-3
Sample Time 1300
Page of
Date 4-14-06

Project Name Factory H
Project Number 60004878
Location (Site/Facility Name): Meriden CT
Pump Intake depth (ft below MP): 2' ↑ Bot
Identify Measuring Point (MP):
Riser PVC SS
Protector PVC SS
PID
Diameter of Well 2"
Purging Device; (pump type): Peristaltic pump
Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	9.87	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1235	9.87	1/3			1030	347	6.39	-30.7	6.44	4.5	
1240	↓	↓			952	338	6.04	-44.8	2.49	2.1	
1245					946	336	5.90	-49.1	.80	.50	
1250					948	336	5.81	-49.7	.50	.61	
1255	↓	↓			949	336	5.69	-50.9	.42	.58	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel Jason Miller

Signature of Sampler

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Groundwater Low Flow Field Sampling Form

MS/MSD

Metcalf & Eddy

Well # AOC-3 - MW-1
Sample Time
Page of
Date

Project Name Factory H
Project Number 60004878
Location (Site/Facility Name): Meriden CT
Pump Intake depth (ft below MP): 2' ↑ BOT
Identify Measuring Point (MP): Riser PVC SS
Protector PVC SS
PID Stickup

Diameter of Well 1.5"

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	10 51	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1230	10.51	1/3			12.16	576	6.89	-315.7	1.39	2.1	
1235	↓	↓			11.74	566	6.73	-322.3	1.29	1.8	
1240					11.69	561	6.75	-326	1.02	1.0	
1245					11.82	557	6.74	-337.0	.74	0.89	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler [signature]

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-13
Sample Time 1145
Page of
Date 4-14-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Riser PVC SS
Protector PVC SS
PID 72000

Diameter of Well 2"

	Top of Riser	Top of Protector
Depth to water(In hundredths of a foot)	7.34	
Depth to Bottom(In hundredths of a foot)		

Purging Device; (pump type): Peristaltic pump

Weather: PC like Precip

Condition of Well		
Labeled	yes	no
Locked	yes	no was
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 1.71 10% or <5 NTU	Comments
1112	7.34	1/3	120		1289	503	6.60	394.6	9.24	0.87	
1115					1319	519	6.93	-218	8.44	.50	
1120					1331	518	6.94	-213.1	7.85	.48	
1125					1333	518	6.96	-230.1	7.67	.35	
1130				1 Gal	1322	517	6.97	-286	7.60	.34	
1135					1309	515	6.97	-288	7.63	.40	
1140					1297	513	6.97	-327.9	7.64	.39	
1145					1301	514	6.97	-314.1	7.55	.41	

new YSI

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler J. M. Miller

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Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-10
Sample Time 1025
Page of
Date 4-14-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Riser	PVC	SS
Protector	PVC	SS
PID	0.8	

Diameter of Well

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	9.81	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

*

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min.	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
1000	9.81	43	120		1104	391	6.20	-331.7	1.70	19.8	
1005	9.92				1075	396	6.00	-338.9	.90	10.1	
1010					1062	397	5.96	-342.1	.78	8.7	
1015					1050	400	5.93	-343.0	.72	5.0	
1020				1.00	1053	403	5.93	-345.0	.68	4.87	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler

* Riser + Protector Broke Minus ____ on water level.

C:\Documents and Settings\MillerJ\My Documents\Excel\Feild Forms\LowFlowfieldform

Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # AOC 24 MW-1
Sample Time 10:00
Page of
Date 4-14-06

Project Name Factory H
Project Number 60004878
Location (Site/Facility Name): Meriden CT
Pump Intake depth (ft below MP):
Identify Measuring Point (MP): Riser PVC SS; Protector PVC SS
Diameter of Well 1.5"
PID 0

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	4.24	
Depth to Bottom(in hundredths of a foot)		

Purging Device; (pump type): Peristaltic pump

Weather: Sunny

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
925	4.25	1/4	100	–	12.03	208	5.88	158.4	8.20	1.01	
930					11.79	235	5.68	146.3	6.83	0.89	
935					11.35	251	5.56	137.1	5.59	1.01	
940					11.31	252	5.52	137.9	5.55	1.05	
945					11.29	272	5.39	135.2	5.95	0.89	
950					11.85	281	5.33	131.1	4.70	.70	
955					12.69	295	5.27	130.0	4.09	.60	
1000					12.71	302	5.32	129.0	4.01	.58	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler JM

VOC's, ETPH, + PAHs

C:\Documents and Settings\MillerJ\My Documents\Excel\Feild Forms\LowFlowfieldform

Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-11
Sample Time 850
Page of
Date 4-17-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Riser	PVC	SS
Protector	PVC	SS
PID		

Diameter of Well

Purging Device; (pump type): Peristaltic pump

Weather:

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	8.54	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
830	8.55	1/3			10.90	392	6.18	-351	6.50		
836					11.09	356	6.02	-349.1	5.94	8.76	
841					11.57	325	5.94	-344.3	5.60	3.20	
844					11.66	301	5.84	-331	5.55	2.10	
850					11.70	294	5.95	-329	5.54	1.84	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler J. M. Miller

Groundwater Low Flow Field Sampling Form

Metcalf & Eddy

Well # MW-12
Sample Time 07:30
Page of
Date 4-14-06

Project Name
Project Number
Location (Site/Facility Name):
Pump Intake depth (ft below MP):
Identify Measuring Point (MP):

Factory H
60004878
Meriden CT

Riser PVC SS
Protector PVC SS
PID 0

Diameter of Well 2"

Purging Device; (pump type): Peristaltic pump

Weather: PC

	Top of Riser	Top of Protector
Depth to water(in hundredths of a foot)	8.89	
Depth to Bottom(in hundredths of a foot)		

Condition of Well		
Labeled	yes	no
Locked	yes	no
Condition	Good	Poor

Clock Time 24 HR	Water Depth below MP ft	Pump Dial[1] 300	Purge Rate ml/min	Cum. Volume Purged gal	Temp. 3% °C	Spec. Cond.[2] 3% µS/cm	pH 6.33 ±.10 s.u.	ORP/ Eh[3] ±10 mv	DO 10% mg/L	Turb-idity 10% or <5 NTU	Comments
708	8.84	1/3	100		12.21	397	~~6.70~~	319.1	10.13	1.26	
713					11.93	384	6.45	345.0	9.48	1.01	
718					11.90	384	6.52	338.1	9.32	1.0	
723					11.80	383	6.58	326.8	9.27	0.98	
					11.90	386	6.60	389.1	9.21	.68	

1. Pump dial setting (300rpm 3/4 speed)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Field Personnel
Jason Miller

Signature of Sampler Jason W. Miller

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): Meriden Factory H

Well #: MW-100 Date: 11-29-06

Field Personnel: E. Crann

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): ~~PVC~~ top of steel protector

Screen Interval From MP in feet: 9 Top, 19 Bottom

Pump Intake depth (ft below MP): 2' above bottom (~18')

Purging Device; (pump type): peristaltic

Weather: 50s, cloudy

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
initial	15.08										
10:03	15.3	1/3	120		13.46	1018	7.04	27.9	4.24	725.4	orange discoloration
10:08	15.3	" "	" "		13.40	1013	7.02	48.7	3.62	740.7	
10:13	15.25	" "	" "		13.39	1006	7.01	42.5	3.57	1008.3	534 (direct)
10:18	" "	" "	" "		13.27	997	7.01	37.4	3.53	628.3	234
10:21	15.28	" "	" "		13.39	993	7.02	39.2	3.50	341.9	136
10:24	" "	" "	" "		13.37	988	7.02	41.0	3.47	258.8	123
10:27	" "	" "	" "		13.37	983	7.02	42.6	3.51	161.7	63.5 → emptied
10:32	15.15	" "	" "		13.39	952	7.05	35.3	6.42	118.7	15.1 to
10:36	15.3	" "	" "		13.46	950	7.03	37.7	5.28	139.3	remove sand
10:39	15.3	" "	115		13.50	948	7.03	41.1	4.28	144.5	
10:42	" "			1.5	13.50	946	7.02	41.0	3.48	174.4	
10:45	15.3		125		13.41	942	7.02	43.4	3.35	73.2	37.4 (direct)
10:48	" "				13.39	939	7.02	43.8	3.38	49.3	18.6
10:51	" "			2	13.37	937	7.02	44.4	3.39	33.8	12.0
10:54	" "				13.32	934	7.02	45.5	3.37	21.7	9.39
10:57					13.32	932	7.02	46.0	3.38	14.2	6.31
11:00					13.33	930	7.02	46.6	3.41	10.1	4.63
11:03					13.34	928	7.02	45.9	3.32	7.2	
						called 6	1 hour				

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): FACTORY H

Well # MW-101 Date: 11-29-06

Field Personnel: S. PERHALA

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): PVC

Screen Interval	Top	Bottom
From MP in feet:	23	33

Pump Intake depth (ft below MP): 30'

Purging Device; (pump type): GEOPUMP

Weather: 50° OVERCAST

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] mS/cm µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
10:05	15.03		95		13.2	0.652	6.82	-78	1.57	96.5	PUMP ON 9:55
10:10	15.03				13.1	0.641	6.78	-81	0.55	64.0	
10:15	15.03				13.0	0.633	6.84	-104	0.25	40.8	STATIC H2O: 15.02
10:20	15.03		120		13.0	0.629	6.89	-112	0.16	22.1	
10:25	15.03				12.9	0.624	6.94	-122	0.54	26.8	
10:30	15.03				12.9	0.616	6.93	-121	0.20	17.0	
10:35	15.03				13.0	0.614	6.94	-119	0.05	13.2	
10:38	15.03				12.9	0.613	6.95	-123	0.00	14.4	
10:41	15.03				12.8	0.610	6.93	-116	0.00	14.25	
				~0.5g							SAMPLE TIME 10:45

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): FACTORY H, MERIDEN

Well # MW-102 Date: 11-29-06

Field Personnel: S. PERHALA

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): TOP STEEL CASING

Screen Interval	Top	Bottom
From MP in feet:	9	19'

Pump Intake depth (ft below MP): 16'

Purging Device; (pump type): GeoPump

Weather: 50s OVERCAST

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
11:48	13.97		255		13.3	0.43[illegible]	7.18	5	1.34	59.6	STATIC H_2O 13.95
11:53	13.97				13.5	0.432	7.00	-75	0.00	37.7	
11:58	13.97				13.6	0.432	7.00	-104	0.00	316.1	PUMP ON 11:40
12:03	13.97				13.6	0.432	7.01	-104	0.00	10.93	
12:08	13.97				13.6	0.432	7.01	-85	0.00	3.84	SAMPLE TIME: 12:20
12:13	13.97				13.6	0.433	7.00	-67	0.00	2.68	
12:18	13.97				13.6	0.433	7.00	-62	0.00	2.02	
12:22	13.97				13.6	0.433	7.00	-67	0.00	1.08	
				<3gal							

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): Meriden Factory H

Well # MW-103 Date: 11-29-06

Field Personnel: Craun

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): PVC

Screen Interval	Top	Bottom
From MP in feet:	7	17

Pump Intake depth (ft below MP): 2' above well bottom

Purging Device; (pump type): peristaltic

Weather: 50s, cloudy

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
initial	13.23	1/2	120								
11:45	13.30	↓	↓		11.98	498	6.61	40.1	4.30	124.9	(Tb-> YSI reading)
11:50	13.28				12.08	497	6.58	50.8	1.45	102.7	
11:53	13.26				12.09	498	6.57	62.1	1.21	95.0	
11:56	13.25				12.15	493	6.56	59.4	0.96	212.7	/72.4 (2nd dect)
11:59	↓	↓	↓		12.16	489	6.56	48.9	0.82	149.0	
12:02					12.16	487	6.56	38.6	0.78	98.6	
12:05					12.19	486	6.56	46.7	0.74	95.4	
12:08					12.19	485	6.56	53.7	0.79	100.7	
12:11					12.17	485	6.56	51.8	0.81	50.3	
12:14					12.17	485	6.56	46.9	0.79	47.0	
12:17					12.13	485	6.56	29.9	0.87	30.7	
12:20	13.27				12.18	484	6.56	31.8	0.72	23.7	
12:23					12.18	482	6.56	38.2	0.72	24.2	
12:26					12.18	481	6.56	34.0	0.73	22.5	
					sampled @ 12:30						

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): Meriden Factory H

Well # MW-104 Date: 11-29-06

Field Personnel: Craun

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): PVC

Screen Interval From MP in feet: 7 Top 17 Bottom

Pump Intake depth (ft below MP): 2' from bottom of well

Purging Device; (pump type): peristaltic

Weather: 50s, cloudy

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
initial	11.85										
13:17	12.02				12.15	176	6.30	55.6	3.43	74.3	(Ti from YSI)
13:20	12.02				12.24	174	6.25	49.6	2.28	49.9	
13:23	11.97				12.25	172	6.24	52.1	1.97	28.1	
13:26	11.95		150		12.20	172	6.23	61.9	2.00	14.3	
13:29	11.98				12.20	172	6.23	62.8	2.08	7.8	
13:32	11.94				12.20	171	6.22	69.7	2.24	4.7	
13:35	11.94				12.21	170	6.22	72.6	2.37	2.7	
13:38	11.94				12.21	171	6.22	76.7	2.49	2.2	
13:41	11.94				12.23	171	6.22	79.0	2.68	2.0	
13:44	11.94			1	12.22	171	6.22	82.3	2.72	2.0	
					sampled @ 13:45						

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): FACTORY H MELDEN

Well # MW-105 Date: 11-29-06

Field Personnel: S. PETAHALA

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): PVC

Screen Interval	Top	Bottom
From MP in feet:	4'	14'

Pump Intake depth (ft below MP): 12'

Purging Device; (pump type): GEOPUMP

Weather: 50s OVERCAST

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
13:20	10.47		200		12.7	0.465	6.67	211	1.69	36.7	STATIC H_2O 10.47
13:25	10.47				12.7	0.425	6.66	215	1.79	12.7	
13:30	10.48				12.7	0.424	6.69	217	1.87	88.4	PUMP ON AT 13:15
13:35	10.47		98		12.7	0.410	6.69	219	1.83	541	
13:40	10.47				12.6	0.405	6.66	224	1.68	324	
13:45	10.47		90		12.6	0.398	6.69	228	1.86	90.9	SAMPLE TIME 13:54
13:50	10.47				12.7	0.395	6.69	230	2.03	26.1	
				~2g							

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): Meriden Factory H

Well # MW-106 Date: 11-29-06

Field Personnel: Craun

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): PVC

Screen Interval	Top	Bottom
From MP in feet:	3	13

Pump Intake depth (ft below MP): 2' above bottom of well

Purging Device; (pump type): peristaltic

Weather: 50s, cloudy

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
initial	9.54										
14:14	9.57	1/2	140		12.60	314	6.45	81.1	5.68	70.9	(T0 from FSI)
14:17	9.57	↓	↓		12.73	310	6.43	80.6	4.22	49.4	
14:20	9.55				12.79	300	6.40	87.1	3.80	31.5	
14:23	9.55	↓	↓		12.84	297	6.38	89.1	3.76	23.7	
14:26	9.55				12.85	293	6.38	91.4	3.75	15.9	
14:29	9.55	↓	↓		12.84	287	6.37	92.9	3.80	10.7	
14:32	9.55				12.88	286	6.37	94.5	3.81	7.5	
14:35	9.55	↓	↓		12.88	282	6.36	95.0	3.80	5.7	
14:38	9.55				12.91	279	6.36	95.5	3.86	5.0	
14:41	9.55	↓	↓		12.91	278	6.36	96.2	3.87	3.7	
					Sampled at 14:44						

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1

Well Purging-Field Water Quality Measurement Form

Location (Site/Facility Name): FACTORY H MERIDEN

Well # MW-107 Date: 11-29-06

Field Personnel: S. PERHACA

Sampling Organization: Metcalf & Eddy

Identify Measuring Point (MP): TOP STEEL CASING

Screen Interval	Top	Bottom
From MP in feet:	2	12

Pump Intake depth (ft below MP): 10'

Purging Device; (pump type): GEOPUMP

Weather: 50s OVERCAST

Clock Time 24 HR	Depth to Water ft	Pump Dial[1]	Purge Rate ml/min	Cum. Volume Purged gal	Temp. °C	Spec. Cond.[2] µS/cm	pH s.u.	ORP/ Eh[3] mv	DO mg/L	Turb-idity NTU	Comments
14:15	10.08		120		13.4	0.318	6.21	122	1.23	21.0	STATIC H2O 6.98
14:20	9.81		90		13.3	0.309	6.18	127	0.26	10.69	
14:26	9.86				13.2	0.302	6.20	123	0.06	6.32	PUMP ON AT 2:11
14:30	9.92				13.2	0.299	6.21	121	0.00	3.72	
14:35	9.96				13.2	0.283	6.21	114	0.00	2.62	LOWEST PURGE RATE
14:40	9.96				13.2	0.278	6.22	111	0.00	2.05	@90ML/M - WL
14:45	9.96				13.3	0.272	6.22	108	0.00	2.00	STABILIZED AFTER
											~1 DRAWDOWN
											SAMPLE TIME
											14:48

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. µSiemens per cm (same as µmhos/cm at 25°C
3. Oxidation reduction potential (standard for Eh)

Temp +/- 3% ORP +/- 10 mv
Spec. Cond +/- 3% DO +/- 10%
pH +/- 0.1 SU Turb +/- 10% or <1