FINAL

PRELIMINARY ENVIRONMENTAL SITE INVESTIGATION

HUB MALL AND FACTORY H
MERIDEN, CONNECTICUT

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MERIDEN, CONNECTICUT

1.0 PLAN IDENTIFICATION AND APPROVALS

Project Title:	Final Preliminary Environmental Site Investigation
Project Location:	Hub Mall and Factory H, Meriden, CT
Delivery Order No.:	0016
Nobis Project No.:	67030
Prepared By:	Amy Adams
Date Prepared:	11/21/01
Revision No.:	01

APPROVALS:

Courtney Moore, Jr., Site Remediation Manager — Date 11/21/01

FOR

Scott Harding, Delivery Order Manager — Date 11/21/01

2.0 INTRODUCTION

Nobis Engineering, Inc. (*Nobis)* has prepared a Preliminary Environmental Site Investigation (PESI) Report summarizing the results of soil borings and groundwater sampling activities conducted at the Hub Mall and Factory H located in Meriden, Connecticut (CT). This work was performed under Delivery Order No. 0016 of the U.S. Army Corps of Engineers (USACE) New England District Contract No. DACA33-98-D-0004. The work was conducted in accordance with *Nobis'* approved Conceptual Work Plan dated July 20, 2001, and the USACE Statement of Work (SOW) dated April 6, 2001.

A locus plan showing the approximate site location is included as Figure 1. Site plans depicting the location of the soil borings and other pertinent site information is included as Figure 2A and Figure 2B.

2.1 Site Background Information

The investigation sites are located in the City of Meriden, CT, at two locations. The Hub Mall is located on Main Street, and Factory H is located on Cooper Street.

Factory H is presently abandoned and abuts the out-of-service Veterans Memorial Medical Center (VMMC) to the northwest, a residential area to the west, Cooper Street to the south and Harbor Brook to the east. Industrial properties are located beyond Cooper Street and Harbor Brook.

In May of 1999, Milone and MacBroom (MM) of Meriden, CT completed site investigative work in the area of Factory H. MM did not collect groundwater samples during site investigative work. Three soil borings were advanced to approximately 18 feet below ground surface (bgs) in the southern part of the building that abuts Cooper Street. Each of the three borings were completed as monitoring wells. Groundwater was encountered at approximately 9 feet bgs in the borings. Two soil samples from each boring were collected for analytical testing, the results of which indicated concentrations of antimony, arsenic, trichloroethylene (TCE), and benzene exceeding the State of Connecticut's Residential Exposure Criteria.

The Hub Mall is an active strip mall containing a liquor store, a restaurant, a laundromat, and a pharmacy. An electronics company is also located on the west side of the Hub Mall. The Hub Mall property is surrounded by commercial properties on all sides.

In May of 1999, a site investigation performed by MM included the advancement of four soil borings, each of which were completed as monitoring wells on the Hub Mall property. MM did not collect groundwater samples during site investigative work. Two soil samples were collected from each of the borings and analysis indicated the presence of lead, total petroleum hydrocarbons (TPH), and TCE, at concentrations that exceed Residential Exposure Criteria for the State of Connecticut.

3.0 SCOPE OF SERVICES

The objective of this project was to complete a Preliminary Environmental Site Investigation (PESI) for the Hub Mall and Factory H locations. The work described herein was based on USACE's SOW dated April 6, 2001 and includes the following tasks:

- Mobilization/demobilization activities
- Advance, and log three soil borings at Factory H and survey using local benchmarks
- Collect soil samples for field screening and analytical testing from Factory H soil borings
- Install and develop one monitoring well at Factory H
- Develop and sample five existing and one new well at Factory H, and four existing wells at Hub Mall
- Submit groundwater samples for analytical testing
- Prepare PESI Report summarizing all pertinent findings

4.0 SOIL BORINGS AND GROUNDWATER SAMPLING

4.1 Soil Borings in Factory H

On July 23 and 24, 2001, three soil borings designated as FD-01-1 through FD-01-3, were advanced at Factory H. The borings were performed by Glacier Drilling of Meriden, CT using a hollow stem auger-drilling rig under the observation of *Nobis*. Borings FD-01-1 and FD-01-2 were advanced to a depth of 21 feet below ground surface (bgs). Boring FD-01-3 was advanced to a depth of 52 feet bgs where auger refusal was met. Soil samples were collected from each boring and analyzed for volatile organic carbons (VOCs), semi-volatile organic carbons (SVOCs), polychlorinated biphenyls (PCBs), Resource and Conservation Recovery Act (RCRA) Metals, and TPH gasoline range organics (GRO) and diesel range organics (DRO).

The soils and materials, encountered during the performance of the borings were screened in the field for total VOCs using a Photovac MicroTIP photoionization detector (PID) equipped with a 10.6 eV bulb. The MicroTIP PID responds readily to most VOCs but does not register methane or natural components of air such as oxygen, nitrogen, or carbon dioxide. The MicroTIP PID has a detection limit of approximately one part per million (ppm) by volume, referenced to an isobutylene-in-air standard. PID readings in the soils encountered in the soil borings were below the instrument detection limit of 1 ppm.

Soil boring FD-01-1 was completed as an overburden groundwater monitoring well, designated as MW-6. The well was constructed of two-inch diameter thread

coupled Schedule 40 PVC materials. A 15-foot length of machine-slotted 0.010-inch slot well screen was placed across the water table and a solid well casing was extended to the surface. The well annulus around the screen was filled with clean sand to a depth of approximately 1 foot bgs. A 0.5-foot thick bentonite seal was placed above the sand pack. The boring was completed with a flush-mounted road box. An expansion plug was installed in the well. The monitoring well was aggressively developed by pumping with a peristaltic pump 48 hours after the installation of the new well.

The soil borings were surveyed using the I-beam rows as the benchmark. The I-beams are constructed in a grid pattern at approximately 40 feet on-center north to south, and 20 feet on-center east to west. The baseline set of I-beams is located along the southern wall of the building, and was located from the eastern wall of the building.

Soil boring FD-01-1 (MW-6) is located in the northern portion of the building. It was surveyed using the ninth set of I-beams south to north (360 feet north of the southern wall), and was triangulated using the third and fourth beams located 40 and 60 feet in from the eastern wall, respectively. The boring is located approximately 8 feet southwest from ninth row beam three, and approximately 21 feet southeast from ninth row beam four.

Soil boring FD-01-2 was surveyed using the eighth row of I-beams (320 feet from the southern wall), and was triangulated using the third and fourth beams located 40 and 60 feet in from the eastern wall, respectively. The boring is located approximately 13.5 feet southwest from eighth row beam three, and approximately 15 feet southeast of the eighth row, beam four.

Soil boring FD-01-3 was surveyed using the fifth row of I-beams (200 feet from the southern wall), and was triangulated using the third and fourth beams located 40 and 60 feet in from the eastern wall, respectively. The boring is located approximately 15.8 feet southwest from fifth row beam three, and approximately 11.4 feet southeast from fifth row beam four.

Refer to Figure 2 for the approximate locations of the borings and monitoring well, and Appendix A for the boring and well construction logs.

During soil boring activities, *Nobis* observed potential asbestos containing material (ACM) in the form of thermal pipe insulation inside Factory H hanging from pipes and laying on the floor amongst debris.

4.2 Groundwater Monitoring Wells

On July 23 through July 25, 2001, monitoring wells MW-1 HM, and MW-3 HM through MW-5 HM at the Hub Mall and monitoring wells MW-1 through MW-3, MW-5, MW-6, and VMCC MW-2 at Factory H were developed using a peristaltic pump. Well development log sheets are included in Appendix B.

On July 30 and 31, 2001, groundwater samples were collected from the monitoring wells at the Hub Mall and Factory H utilizing the U.S. EPA Low-Flow/Low Stress (low flow) Method. Field water quality measurements are included in Appendix C.

5.0 SOIL AND GROUNDWATER LABORATORY ANALYSIS

Soil and groundwater samples from both sites were submitted, under chain of custody, for analysis to the University of Connecticut Environmental Research Institute (UCONN ERI) in Storrs, CT. Soil and groundwater samples and the appropriate QA/QC samples were analyzed for VOCs, SVOCs, RCRA Metals, PCBs, and TPH (GRO and DRO).

5.1 State of Connecticut Regulations

According to the State of Connecticut Water Quality Standard, both Factory H and Hub Mall are located within a groundwater area designated as GB. A GB area is a historically highly-urbanized/industrialized area in which public drinking water is available. Groundwater in these areas is not considered to be potable without treatment. In addition to being located within a GB area, both sites are considered to be located within Industrial/Commercial areas.

No State Groundwater Protection Criteria values have been promulgated for GB areas as they have for GAA and GA areas. However, Surface-Water Protection Criteria for substances detected in groundwater discharging to a stream (which may be presumed in this case for both parcels) and also volatilization criteria for volatile substances detected in groundwater beneath Industrial/Commercial areas have been promulgated, and are cited as necessary in this report.

In addition to groundwater criteria, contaminated soil standards including Industrial/Commercial Direct Exposure Criteria, Mobility Criteria for GB areas, and Industrial/Commercial Volatilization Criteria for soil vapor have been promulgated, and are also cited as necessary in this report.

In summary, groundwater beneath each of the subject properties is subject to Connecticut State Industrial/Commercial Groundwater Volatilization Criteria and Surface-Water Protection Criteria. Soil beneath each of the sites is subject to Industrial/Commercial Soil Volatilization Criteria, Industrial/Commercial Direct Exposure Criteria, and GB Mobility Criteria.

5.2 Soil Laboratory Analysis

Six soil samples were collected during the performance of the soil borings designated as FD-01-1-0709, FD-01-1-1921, FD-01-2-0305, FD-01-2-1921, FD-01-3-0507, and FD-01-3-1921. An additional sample was submitted for analysis for quality assurance (QA) purposes designated as FD-01-3-1921 DUP. In accordance with the SOW, two soil samples were collected from each boring for laboratory analysis. One sample was collected from the groundwater interface, and

the second was collected from the boring terminus. Laboratory analysis of the submitted soil samples indicated that the soil beneath Factory H does not contain concentrations of contaminants that exceed the Industrial/Commercial criteria. However, if the site category changed from Industrial/Commercial to Residential, then TPH in samples FD-01-2-0305 and FD-01-3-0507 and copper in sample FD-01-3-0507 would exceed Residential Criteria.

The PCB sample fraction in sample FD-01-1-1921 was collected by *Nobis* and submitted to UCONN ERI for analysis under chain of custody. As indicated in the laboratory report, the sample was received by the UCONN ERI undamaged in appropriate containers with the correct preservation. The fraction of PCB data was not reported because the extract was lost due to Gel Permeation Chromatography (GPC) error. Due to the misplacement of the sample, the Organic Preparation (OP) laboratory did not have time to perform a re-extraction.

Refer to Table 1 for a summary of the soil sample analytical results and Appendix D for a copy of the laboratory data sheets.

5.3 Groundwater Laboratory Analysis

Eleven groundwater samples were collected from monitoring wells at both the Hub Mall and Factory H. The Hub Mall samples were designated as MW-1 HM, MW-3 HM, MW-4 HM, and MW-5 HM. The Factory H samples were designated as MW-1, MW-2, MW-3, MW-5, MW-6, and VMCC MW-2. An additional sample was submitted for analysis for QA purposes designated as MW-3 HM2. Laboratory analysis of the submitted groundwater samples indicated that only vinyl chloride detected in samples MW-3 HM [6.1 parts per billion (ppb)] and MW-3 HM2 (7.3 ppb) exceeded the Industrial/Commercial Volatilization Criteria (2 ppb). No concentrations in groundwater exceed the Residential Volatilization Criteria at the Factory H site.

The Surface Water Protection Criteria for several metals has been exceeded in a number of samples at both sites. In summary, arsenic exceeded in sample MW-3 HM (4 ppb), copper exceeded in samples VMCC MW-2 (202 ppb) and MW-4 HM (80 ppb), nickel exceeded in sample VMCC MW-2 (2,370 ppb), and zinc exceeded in samples MW-2 (301 ppb), VMCC MW-2 (2,140 ppb), and MW-6 (173 ppb).

Refer to Table 2 for a summary of the groundwater sample analytical results and Appendix D for a copy of the laboratory data sheets.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Based on the results of the work performed, *Nobis* presents the following conclusions and recommendations:

- Elevated concentrations of vinyl chloride were detected in MW-3 located at the Hub Mall site. The presence of this substance may indicate the latter stages of biodegradation of chlorinated solvents. Chlorinated solvents

including TCE and both (cis)-1,2,-dichloroethene and (trans)-1,2-dichlorethene were also detected in MW-3 at concentrations less than the Industrial/Commercial Volatilization Criteria. Further investigation of this release would be required in order to determine the source and extent of the contamination, and also to assist in the selection of an appropriate remedial action to bring this area into compliance with State of Connecticut Regulations.

- Elevated concentrations of metals exceeding Surface Water Protection Criteria including arsenic, copper, nickel, and zinc were detected in several of the wells at each of the sites. Additional investigation of these releases would be required in order to select an appropriate remedial action.

- Potential ACM consisting of thermal pipe insulation was observed in Factory H during soil boring activities. If the building were to be demolished or renovated in the future, an asbestos inspection would be required prior to any activity to dismiss or confirm the presence of asbestos in Factory H under the Environmental Protection Agency, Title 40 Code of Federal Regulation Part 61, National Emission Standards for Hazardous Air Pollutants (U.S. EPA, 40 CFR Part 61, NESHAP).

TABLES

Table 1
SUMMARY OF ANALYTICAL RESULTS FOR SOIL SAMPLES
Factory H
Meriden, Connecticut

Sample ID / Sample Depth / Parameter	Locations							Residential Exposure Criteria	Industrial/ Commercial Criteria	Industrial/ Commercial Volitization Criteria	GB Mobility Criteria
	FD-01-1-0709 7 - 9 feet	FD-01-1-1921 19 - 21 feet	FD-01-2-1921 19 - 21 feet	FD-01-3-1921 19 - 21 feet	FD-01-3-1921 19 - 21 feet DUP	FD-01-2-0305 3 - 5 feet	FD-01-3-0507 5 - 7 feet				
VOCs (mg/Kg)											
Benzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0017	< 0.001	21	200	113	0.2
Toluene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	500	1,000	2615	67
Ethylbenzene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	500	1,000	5672	10.1
Xylenes	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	500	1,000	1702	19.5
MTBE	< 0.001	< 0.001	0.0015	< 0.001	< 0.001	< 0.001	< 0.001	500	1,000	3415	20
Naphthalene	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	1,000	2,500	NA	56
2-Butanone (Methyl Ethyl Ketone)	0.012	0.008	0.004	0.006	0.005	0.008	0.005	500	1,000	8285	80
Acetone	0.061	0.029	0.024	0.037	0.032	< 0.001	0.018	500	1,000	8250	140
Bromochloromethane	< 0.001	< 0.001	< 0.001	0.0016	0.0015	< 0.001	< 0.001	NA	NA	NA	NA
Oher VOCs	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	NA	NA	NA	NA
SVOCs (mg/Kg)											
Phenol (CCC,MS)	1.06	< 0.41	< 0.38	< 0.48	< 0.45	< 0.40	< 0.37	1,000	2,500	NA	800
Phenanthrene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	1.86	0.41	1,000	2,500	NA	40
Anthracene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	0.77	< 0.37	1,000	2,500	NA	400
Fluoranthene (CCC)	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	1.22	0.87	1,000	2,500	NA	56
Pyrene (MS)	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	0.85	0.81	1,000	2,500	NA	40
Chrysene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	0.67	0.68	NA	NA	NA	NA
Benzo(a)anthracene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	< 0.40	0.55	1	7.8	NA	1
Benzo(b)fluoranthene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	0.46	0.39	1	7.8	NA	1
Benzo(k)fluoranthene	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	< 0.40	0.43	8.4	78	NA	1
Benzo(a)pyrene (CCC)	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	< 0.40	0.43	1	1	NA	1
Other SVOCs	< 0.43	< 0.41	< 0.38	< 0.48	< 0.45	< 0.40	< 0.37	NA	NA	NA	NA
PCBs (mg/Kg)	< 0.0263	Not Reported	< 0.0220	< 0.0243	< 0.0257	< 0.0244	< 0.0262	1	10	NA	NA
TPH (mg/Kg)	352.03	36.08	28.21	33.06	32.15	**712.92**	**1,458.84**	500	2,500	NA	2,500
Metals (mg/Kg)											
Arsenic	2.56	< 1.27	< 1.27	2.12	2.14	4.03	6.26	10	10	NA	NA
Silver	1.02	< 1.02	< 1.02	< 1.02	< 1.02	8.28	4.51	340	10,000	NA	NA
Cadmium	4.09	1.71	2.24	2.12	3.74	4.25	2.50	34	1,000	NA	NA
Chromium	28.7	5.36	9.26	7.14	13.6	13.7	16.8	100	100	NA	NA
Copper	944	18.0	28.6	28.6	20.3	559	**6,185**	2,500	76,000	NA	NA
Nickel	92.4	< 2.54	< 2.54	< 2.54	< 2.54	55.7	959	1,400	7,500	NA	NA
Lead	33.5	4.63	4.07	4.76	8.28	51.2	83.4	500	1,000	NA	NA
Zinc	177	22.2	37.9	33.9	43.0	177	914	20,000	610,000	NA	NA
Mercury	0.06	< 0.03	< 0.03	< 0.03	< 0.03	0.08	0.11	20	610	NA	NA
Other Metals	< 2.54	< 2.54	< 2.54	< 2.54	< 2.54	< 2.54	< 2.54	NA	NA	NA	NA

NOTES:
1) Results are reported as milligrams per kilogram (mg/kg) equivalent to parts per million (ppm), with the exeption of metals which were reported in micrograms per gram also equal to ppm.
2) The samples were collected by Nobis Engineering, Inc. on July 23 and 24, 2001.
3) All analyses were performed by University of Connecticut Environmental Research Institute of Storrs, Connecticut.
4) Residential Criteria and Industrial/Commercial Criteria are referenced in the Regulations of Connecticut State Agencies Direct Exposure for Soil.
5) Inorganic substances and PCB mobility criteria for GB areas are based on TCLP/SPLP sample analyses. The above are total analyses not TCLP/SPLP.
6) Concentrations presented in bold indicate an exceedence of either the Residential Exposure Criteria, or Industrial/Commercial Criteria referenced in the Regulations of Connecticut State Agencies Direct Exposure for Soil.

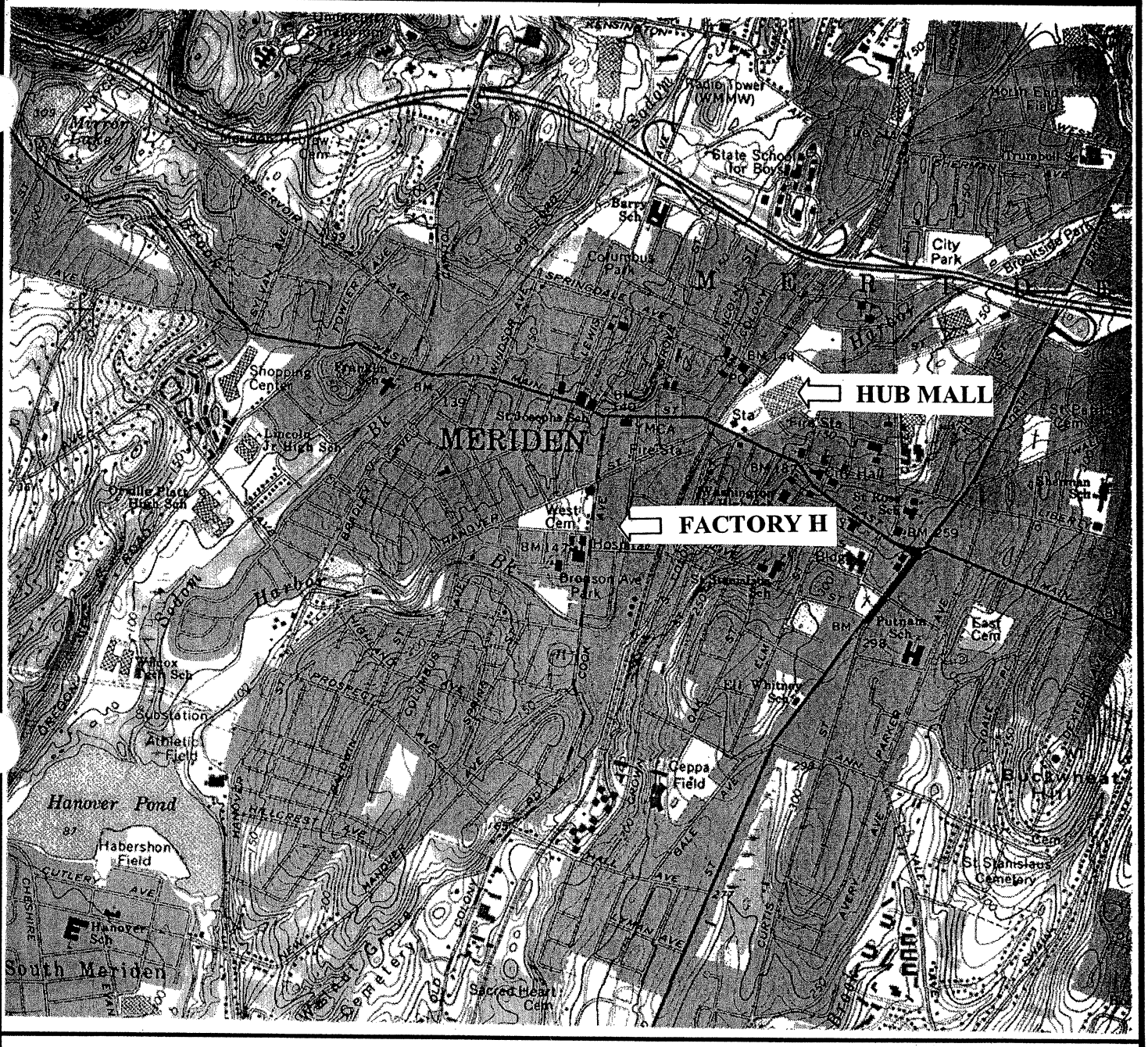
Table 2
SUMMARY OF ANALYTICAL RESULTS FOR GROUNDWATER SAMPLES
Factory H and HUB Mall
Meriden, Connecticut

Sample ID	Factory H Locations						HUB Mall Locations					Surface Water Protection Criteria (ppb)	Groundwater Industrial/Commercial Volatilization Criteria (ppb)
Parameter	MW-1	MW-2	VMCC MW-2	MW-3	MW-5	MW-6	MW-1 HM	MW-3 HM	MW-3 HM2	MW-4 HM	MW-5 HM		
VOCs (ug/L)													
Benzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	710	530
Toluene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	4,000,000	50,000
Ethylbenzene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	580,000	50,000
Xylenes	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	50,000
MTBE	5.1	< 1	5.0	< 1	< 1	< 1	< 1	1.3	1.8	< 1	< 1	NA	50,000
Naphthalene	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA
Trichloroethene	< 1	1.3	22.1	25.7	< 1	2.3	< 1	2.0	2.0	< 1	< 1	2,340	540
Chloroethene (Vinyl Chloride)	< 1	< 1	< 1	< 1	1.4	< 1	< 1	**6.1**	**7.3**	< 1	< 1	15,750	2
Chloroform	< 1	< 1	< 1	< 1	< 1	< 1	1.5	< 1	< 1	< 1	< 1	14,100	710
Dichloromethane	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	1.0	< 1	NA	NA
(cis)-1,2-Dichloroethene	< 1	< 1	10.6	4.0	38.2	12.6	< 1	16.1	18.3	< 1	< 1	NA	NA
(trans)-1,2-Dichloroethene	< 1	< 1	< 1	< 1	9.9	< 1	< 1	2.7	3.0	< 1	< 1	NA	NA
Other VOCs	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	< 1	NA	NA
SVOCs (ug/L)	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	< 2	NA	NA
PCBs (ug/L)	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	< 0.1	0.5	NA
TPH (ug/L)	< 50	< 50	210	< 50	< 50	770	110	490	550	110	160	NA	NA
Metals (ug/L)													
Arsenic	< 2	< 2	< 2	< 2	< 2	3	3	4	3	< 2	< 2	4	NA
Silver	< 4	< 4	6	< 4	< 4	5	< 4	< 4	10	6	< 4	12	NA
Copper	27	33	**202**	30	18	42	10	< 10	< 10	**80**	< 10	48	NA
Nickel	< 10	187	**2,370**	17	< 10	213	< 10	15	16	11	< 10	880	NA
Lead	3	< 2	< 2	< 2	2	< 2	7	< 2	3	< 2	2	13	NA
Zinc	31	**301**	**2,140**	38	21	**173**	26	33	< 20	61	21	123	NA
Mercury	< 0.08	0.11	0.09	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	<0.08	0.10	< 0.08	0.4	NA
Other Metals	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	< 10	NA	NA

NOTES:
1) Concentrations presented in bold indicate an exceedence of either the Groundwater Industrial/Commercial Volatilization Criteria, or the Surface Water Protection Criteria.
2) Concentrations are reported as micrograms per liter (µg/L), equivalent to parts per billion (ppb).
3) The samples were collected by Nobis Engineering, Inc. on July 30 and 31, 2001.
4) The analyses were performed by Unviersity of Connecticut Environmental Research Institute of Storrs Connecticut.
5) The groundwater standards refer to the Groundwater Protection Criteria referenced in Sections 22a-133k-1 through 22a-133k-3 of the Regulations of Connecticut State Agencies.

FIGURES

DWG. NAME: MeridenLocus



NORTH

USGS TOPOGRAPHIC MAP

MERIDEN, CONNECTICUT

1992

APPROXIMATE SCALE
1:24,000

Nobis Engineering, Inc.
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Building 2, Suite 207
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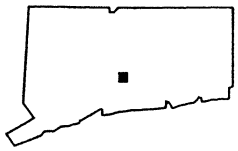

QUADRANGLE LOCATION

FIGURE 1

LOCUS PLAN

FACTORY H & HUB MALL
COOPER ST. & STATE ST.
MERIDEN, CONNECTICUT

PROJECT 67030

OCTOBER 2001

DWG NAME: FactoryH

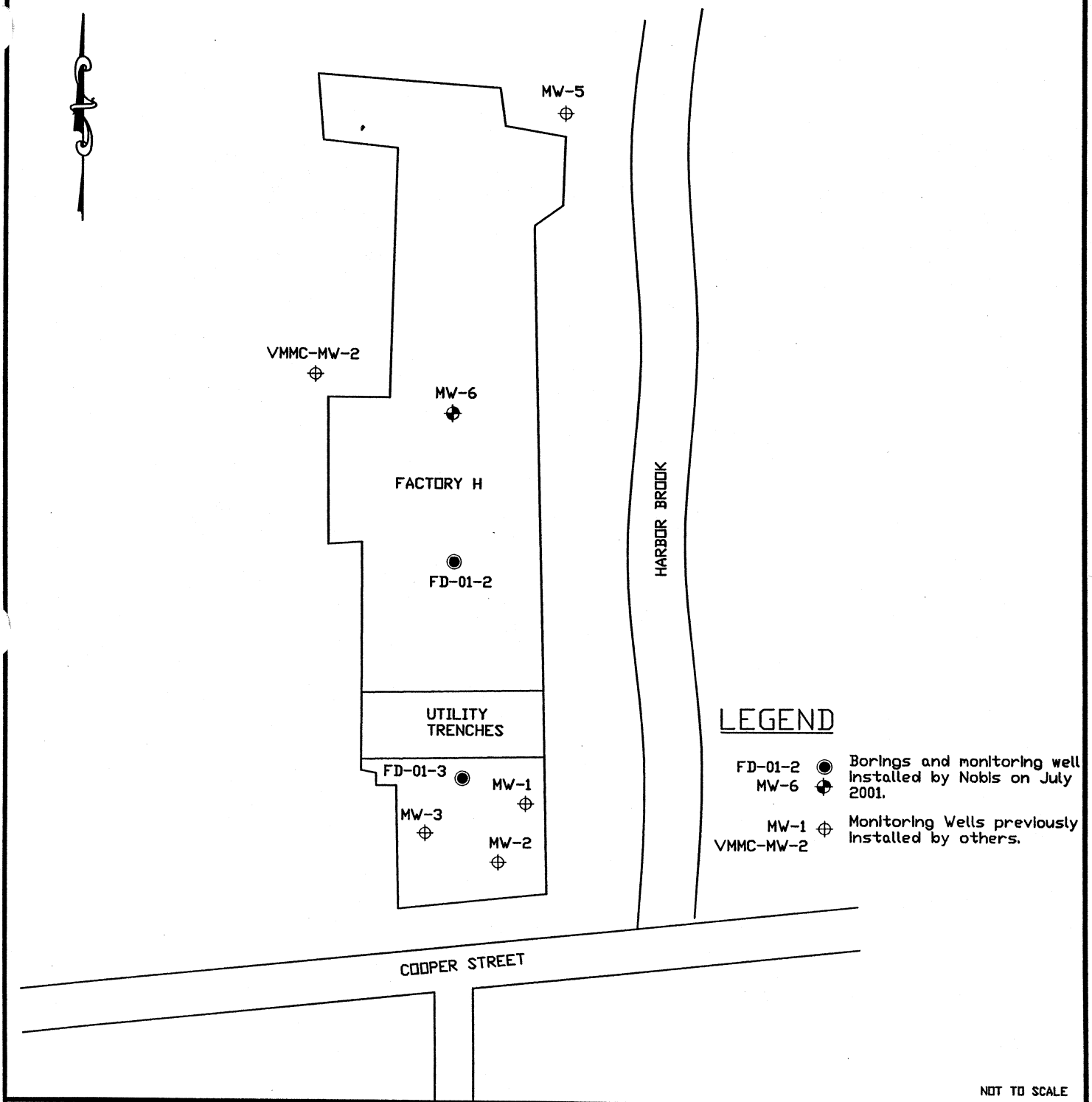

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FIGURE 2A

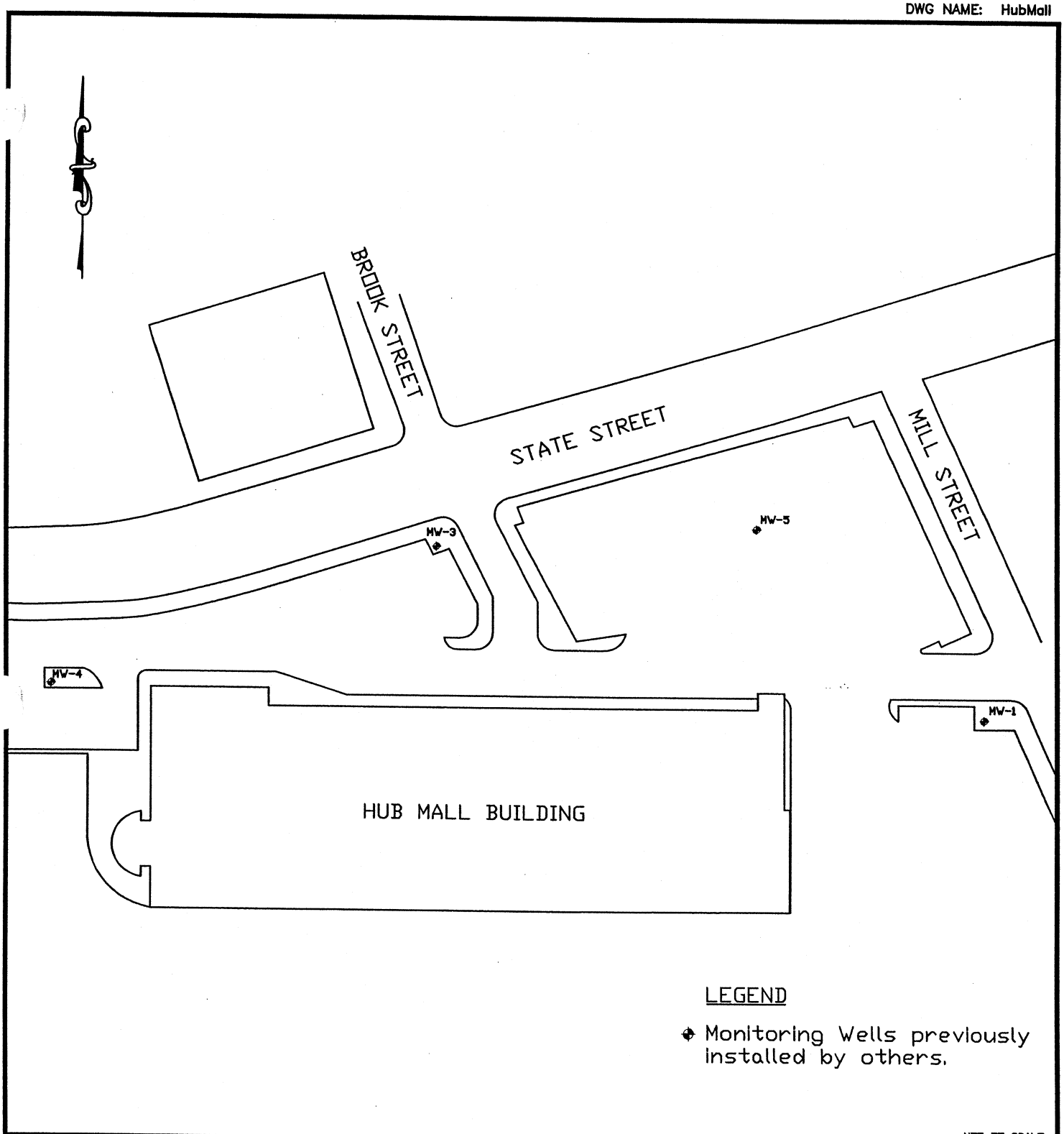
SITE PLAN

FACTORY H
COOPER STREET
MERIDEN, CONNECTICUT

PROJECT 67030

OCTOBER 2001

DWG NAME: HubMall



NOT TO SCALE

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FIGURE 2B

SITE PLAN

HUB MALL
STATE STREET
MERIDEN, CONNECTICUT

PROJECT 67030

OCTOBER 2001

APPENDIX A

CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-1 (MW-6) SHEET 1 of 2 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/23/01	Date End 7/23/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.
Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.
Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)				
Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
						1" Tongue and Groove Wood, 3" Plywood, 7" Concrete		Curb box	0-1'
	1	24/12	1-3	10/11	0	Reddish-Brown Dense Well graded silty Sand		Concrete seal	0-1'
				15/12		and gravel. (SW)		Filter sand	1-4'
								Bentonite seal	
	2	24/11	3-5	10/11	0	3" same as above			
				4/3		8" Black Medium Dense Black Silty Sand with clay. (SP)		2" PVC riser pipe	0-4'
						and gravel. (SW)		2" PVC well screen	4-18'
5	3	24/19	5-7	3/2	0	7" Reddish-Brown Medium Stiff Silty Clay and sand. (CL)			
				3/2		12" Reddish-Brown Medium Stiff Silty Clay with			
						sand. (CL)			
	4	24/21	7-9	7/6	0	Reddish-Brown Stiff Sitly Clay. (OH/CH)			
				6/6		Lower 4" saturated			
	5	24/20	9-11	3/5	0	9" Reddish-Brown Stiff Silty Clay with sand,			1
				3/2		moist. (OH/CH)			
10						12" Reddish Brown Stiff Clayey Silt with sand,			
						saturated. (OH/MH)			
	6	24/18	11-13	3/5	0	3" Reddish-Brown Very Stiff Clayey Silt with sand. (MH)			
				10/8		8" Reddish-Brown Medium Dense Sand and Silt, with			
						clay. (SW)			
						7" Reddish-Brown Medium Dense Sand and Silt with gravel. (SP)			
	7	24/14	13-15	6/6	0	Reddish-Brown Very Stiff Sandy Silt with clay,			
				6/7		saturated. (MH)			
15	8		15-17	2/5	0	Reddish-Brown Very Stiff Silt with sand and clay,			
				5/6		saturated. (MH)			
	9	24/24	17-19	5/4	0	Reddish-Brown Stiff Silt with sand, saturated. (MH)			
				4/7					

REMARKS:
1) Groundwater first noted at approximately 8.6 feet.

NOTES:
1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-1 SHEET 2 of 2 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/23/01	Date End 7/23/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)				
Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
								2" PVC well screen	
	10	24/24	19-21	6/11	0	Reddish-Brown Hard Silt with sand, saturated. (MH)		Filter sand	6-19'
				13/11					
20									
						End of exploration at 21' bgs.			
25									
30									

REMARKS:

2) Groundwater monitoring well installed to a depth of approximately 19 feet upon completion of the boring.

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Nobis CONCORD, NH - LAWRENCE, MA	**PROJECT** FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-2 SHEET 1 of 2 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/23/01	Date End 7/23/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.
Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.
Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)				
Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
						1" Tongue and Groove Wood 3" Plywood, 6" Concrete			
	1	24/21	1-3	11/26	0	Reddish-Brown Very Dense Silty Sand with			
				21/25		Gravel. (SW)			
	2	24/11	3-5	17/32	0	8" Same as above.			
				18/20		3" Black coal ash.			
5	3	24/18	5-7	3/1		6" Black coal ash, moist.			1
				1/2		6" Dark Brown coal ash and Soft Clayey Silt, moist. (ML)			
						6" Reddish-Brown Very Loose Clayey Silty Sand,			
						moist. (SP)			
	4	24/22	7-9	4/5	0	Reddish-Brown Very Stiff Silty Clay with sand,			
				9/8		moist. (CL)			
	5	24/11	9-11	8/8	0	Reddish-Brown Medium Dense Silty Sand with clay			
				3/3		and gravel, saturated. (SW)			
10									
	6	24/10	11-13	3/4	0	Reddish-Brown Medium Dense Sand with clay, silt			
				8/6		and gravel, saturated. (SW)			
	7	24/6	13-15	2/3	0	6" Reddish-Brown Very Stiff Clay, saturated (CH)			
				8/6		18" Running Sand.			
15	8	24/16	15-17	6/6	0	8" Blown-in Soil. 5" Reddish-Brown Medium Dense			
				5/7		Sand with silt, clay and gravel, saturated. (SW) 3"			
						Reddish-Brown Medium Dense Sand and Silt, saturated.			
						(SW)			
	9	24/24	17-19	5/5	0	6" Reddish-Brown Medium Dense Sand with gravel,			
				4/5		saturated. (SW) 5" Reddish-Brown Medium Dense Sand			
						and Silt, saturated. (SP) 7" Reddish-Brown Medium			
						Dense Sand with gravel, saturated. (SW) 6" Reddish-			
						Brown Medium Dense Sand and Silt, saturated. (SP)			

REMARKS:
1) Groundwater first noted at approximately 5 feet.

NOTES:
1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Nobis CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-2 SHEET 2 of 2 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/23/01	Date End 7/23/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)

Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
									2
	10	24/24	19-21	4/6	0	Same as above			
				10/8					
20									
						Exploration ended at 21' bgs.			
25									
30									

REMARKS:

2) No groundwater monitoring well was installed at this boring location.

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Nobis	PROJECT	WELL NO.	FD-01-3
CONCORD, NH - LAWRENCE, MA	FACTORY H	SHEET	1 of 4
	MERIDEN, CONNECTICUT	FILE NO.	67030 T500
		CHKD. BY	

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/24/01	Date End 7/24/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)				
Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
						1" Tongue and Groove Wood 3" Plywood, 6" Concrete			
	1	24/11	1-3	16/18	0	Reddish-Brown Very Dense Sand with silt and			
				16/22		gravel. (SW)			
	2	24/10	3-5	35/27	0	2" cored stone.			
				25/20		6" same as above. 2" coal ash.			
5	3	24/20	5-7	5/4	0	16" coal ash, green, coal slag, and ceramic			
				3/1		insulator.			
						4" Reddish-Brown Medium Stiff Clay. (CH)			
	4	24/14	7-9	3/3	0	Reddish-Brown Stiff Clay with sand and silt, moist. (CH)			
				4/5					
	5	24/21	9-11	2/2	0	11" Brown Medium Dense Sand and Silt with clay,			
				2/2		saturated. (SP)			
10						12" cored wood.			
	6	24/12	11-13	4/6	0	Reddish-Brown Medium Dense Sand with clay, gravel,			
				8/12		and silt, saturated. (SW)			
	7	24/16	13-15	8/8	0	Reddish-Brown Very Stiff Clay with sand and silt,			
				8/10		saturated. (CH)			
15	8	24/18	15-17	1/8	0	Reddish-Brown Very Stiff Clay and Silt, saturated. (CH)			
				6/8					
	9	24/20	17-19	7/9	0	Reddish-Brown Very Stiff Clay and Silt, saturated. (CH)			
				9/7					

REMARKS:

1) Groundwater first noted at approximately 7 feet.

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Nobis CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-3 SHEET 2 of 4 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/24/01	Date End 7/24/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)

Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
	10	24/16	19-21	6/6	0	Same as above.			
				3/11					
20									
25	11	24/14	25-27	6/6	0	Reddish Brown Sand with clay and silt,			
				5/4		saturated. (SW)			
30	12	24/24	30-32	2/3	0	Reddish Brown Stiff Silt with clay and sand,			
				5/6		saturated. (ML)			

REMARKS:

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Nobis CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-3 SHEET 3 of 4 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/24/01	Date End 7/24/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)

Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
35	13	24/24	35-37	4/10	0	Same as above.			
				12/11					
40	14	24/12	40-42	1/7	0	Same as above.			
				8/9					
45	15	24/13	45-47	4/12	0	Reddish-Brown Dense Sand with clay, gravel, and silt, saturated. (SW)			
				11/8					

REMARKS:

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-3 Date: 7/23/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 13 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1200	9.41	135	150	--	--	--	--	--	--
1205	9.63	135	150	14.4	40	6.48	276	2.75	8.3
1210	9.61	135	140	14.3	39	6.44	263	2.20	5.4
1215	9.58	135	125	14.3	39	6.45	260	2.01	6.1
1220	9.58	115	90	14.4	39	6.46	258	1.73	9.3
1225	9.57	115	90	14.5	39	6.47	257	1.81	7.3
1230	9.57	145	100	14.2	38	6.43	259	1.76	5.4
1235	9.57	145	100	14.1	38	6.36	264	1.77	5.3
1240	9.57	145	100	14.4	38	6.29	268	1.84	4.9
1245	9.57	150	100	14.3	38	6.23	273	1.96	4.9
1250	9.57	175	100	14.7	38	6.19	275	2.02	4.8
		*battery beginning to die							
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-5 Date: 7/23/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 12 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1605	6.75	150	100	--	--	--	--	--	--
1610	7.28	150	100	14.7	45	6.25	-108	1.05	1.5
1615	7.18	150	100	14.5	46	5.92	-102	0.57	1.1
1620	7.13	150	100	14.5	46	5.84	-98	0.55	1.2
1625	7.11	150	100	14.5	46	5.83	-98	0.51	0.85
1630	7.08	150	100	14.5	45	5.84	-96	0.5	0.4
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-6 Date: 7/23/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 15 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1140	9.03	150	225	--	--	--	--	--	--
1145	9.49	150	225	12.9	37	6.02	1	2.37	40.0
1150	9.34	150	225	12.6	35	5.73	16	1.39	23
1155	9.31	150	225	12.9	34	5.60	24	1.03	21
1200	9.34	175	275	12.4	34	5.54	28	0.97	10
1205	9.38	175	275	12.2	35	5.53	30	0.95	9.2
1210	9.37	175	275	12.2	35	5.53	31	0.89	9.2
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: VMCC MW-2 Date: 7/23/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 10 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1310	7.14	150	300	--	--	--	--	--	--
1315	7.26	150	300	15.3	54	6.38	123	1.63	2.4
1320	7.24	150	300	14.3	54	6.15	116	0.39	2.1
1325	7.24	150	300	14.3	53	5.96	132	0.34	1.1
1330	7.24	150	300	14.4	53	5.94	136	0.33	1.1
1335	7.24	150	300	14.5	52	5.93	140	0.35	0.65
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-1 Date: 7/24/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 12 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1355	8.55	150	250	--	--	--	--	--	--
1400	9.60	150	250	17.7	55	6.97	224	6.18	0.8
1405	9.60	150	250	16.8	55	6.88	225	4.22	1.9
1410	9.60	150	250	16.8	54	6.62	240	3.86	1.2
1415	9.60	150	250	16.9	54	6.56	244	3.85	1.1
1420	9.60	150	250	17	54	6.53	245	3.71	1.0
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-3 Date: 7/24/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 11 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1615	6.05	150	275	--	--	--	--	--	--
1620	6.16	150	275	20.3	89	6.43	-68	2.04	5.3
1625	6.16	150	275	19.5	87	6.51	-96	0.73	5.0
1630	6.16	150	275	19.3	87	6.25	-92	0.47	5.7
1635	6.16	150	275	19.2	87	6.18	-90	0.42	5.3
1640	6.16	150	275	19.2	86	6.19	-90	0.36	5.9
1645	6.16	150	275	19.1	86	6.20	-89	0.33	5.9
1650	6.16	150	275	19.2	86	6.22	-89	0.33	5.5
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-4 Date: 7/25/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 11 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
910	7.92	150	325	--	--	--	--	--	--
915	8.03	150	325	19.9	0.13	6.76	45	2.50	1.5
920	8.03	150	325	19.7	0.13	6.69	38	0.53	2.1
925	8.03	150	325	19.8	0.13	6.40	52	0.41	1.5
930	8.03	150	325	19.7	0.13	6.43	54	0.38	1.3
935	8.03	150	325	19.7	0.13	6.45	50	0.36	1.4
940	8.03	150	325	19.7	0.13	6.53	43	0.35	1.2
945	8.03	150	325	19.8	0.13	6.63	37	0.34	1.1
950	8.03	150	325	19.8	0.13	6.74	29	0.33	1.3
955	8.03	150	325	19.7	0.13	6.79	25	0.33	1.5
1000	8.03	150	325	19.8	0.13	6.82	22	0.33	1.4
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

Well Purging - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-5 Date: 7/24/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 9 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1010	5.68	160	100	--	--	--	--	--	--
1015	5.73	160	100	21.1	83	6.76	22	1.67	3.5
1020	5.73	160	100	22.2	82	6.83	4	1.40	2.9
1025	5.73	160	100	22.7	82	6.82	3	1.27	3.9
1030	5.73	200	150	20.9	83	6.70	-5	1.22	5.2
1035	5.73	200	150	21.3	82	6.59	-10	1.02	4.7
1040	5.73	200	150	21.5	82	6.55	-11	0.91	4.6
1045	5.73	200	150	22.1	82	6.56	-14	0.81	4.6
1050	5.73	225	150	22.7	82	6.59	-22	0.77	4.8
1055	5.73	225	150	20.8	83	6.54	-44	0.68	5.5
1100	5.73	225	150	21.0	82	6.51	-54	0.64	5.0
1105	5.73	225	150	21.4	82	6.53	-47	0.55	3.2
1110	5.73	225	150	22.0	82	6.60	-44	0.56	3.4
1115	5.73	230	150	23.0	82	6.73	-49	0.54	3.2
1120	5.73	100	150	20.8	83	6.79	-57	0.63	4.3
1125	5.73	100	150	20.6	82	6.80	-69	0.58	4.0
1130	5.73	100	150	20.7	82	6.86	-78	0.56	3.9
1135	5.73	100	150	20.7	82	6.88	-78	0.54	3.3
End of development									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)
4. Well was purged by pumping at a high rate until stabilization of pH (+/-0.1), temperature (3%), specific conductivity (3%), and turbidity (10%,<1) between three consecutive measurements was achieved.

APPENDIX C

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-1 Date: 7/30/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 12 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
750	9.79	150	250	--	--	--	--	--	--
755	9.79	150	250	12.0	37	6.40	255	3.77	0.70
800	9.83	150	250	12.0	36	6.78	235	3.26	0.60
805	9.83	150	250	12.0	35	6.80	233	3.79	0.35
810	9.83	150	250	12.0	35	6.81	233	4.06	0.15
815	9.83	150	250	11.9	35	6.80	232	4.28	0.10
820	9.83	150	250	11.9	35	6.80	232	5.35	0.20
825	9.83	150	250	12.0	35	6.79	231	5.26	0.05
830	9.83	150	250	11.9	35	6.77	231	5.16	0.00
835	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-2 Date: 7/30/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 13 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
805	9.84	180	225	--	--	--	--	--	--
810	9.84	150	225	12.9	53.9	6.61	246	5.06	0.89
815	9.84	150	250	12.8	53.3	6.58	269	4.88	0.09
820	9.84	150	240	12.8	53.5	6.59	291	4.92	0.00
825	9.84	150	250	12.8	53.2	6.6	301	4.96	0.00
830	9.84	150	250	12.8	53.2	6.63	300	4.96	0.00
835	9.84	150	250	12.8	53.2	6.65	293	4.95	0.00
840	9.84	150	250	12.9	53.2	6.66	288	4.93	0.00
845	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-3 Date: 7/30/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 13 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
940	9.53	180	--	--	--	--	--	--	--
945	9.56	150	225	12.9	37.6	6.69	322	1.31	15
950	9.60	150	200	13.1	36.0	6.66	323	1.11	6.1
955	9.60	150	200	13.2	36.0	6.65	326	1.25	2.8
1000	9.62	150	200	13.4	36.4	6.64	323	1.40	1.5
1005	9.65	150	200	13.4	37.1	6.65	319	1.43	0.70
1010	9.66	150	200	13.3	37.4	6.65	319	1.47	0.75
1015	9.66	150	175	13.4	37.4	6.65	319	1.58	0.55
1020	9.66	150	175	13.5	37.3	6.65	320	1.62	0.75
1025	9.67	150	150	13.5	37.5	6.66	321	1.70	1.3
1030	9.68	150	125	13.6	37.7	6.66	320	1.99	2.2
1035	9.68	180	150	13.7	37.7	6.66	319	1.99	1.3
1040	9.69	145	150	13.4	37.8	6.65	315	2.00	0.85
1045	9.70	145	175	13.3	37.9	6.66	316	2.01	0.95
1050	9.71	145	175	13.3	38.1	6.65	310	2.01	0.50
1055	Sampled								
*1045 the battery was switched									

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-5 Date: 7/30/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 12 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
940	6.79	150	250	--	--	--	--	--	--
945	6.99	150	250	13.9	43	6.6	-113	1.27	6.1
950	7.13	150	250	13.9	43	6.37	-109	0.72	3.6
955	7.19	150	250	14.0	43	6.33	-111	0.65	1.5
1000	7.23	150	250	14.0	43	6.33	-114	0.59	1.3
1005	7.19	120	200	14.1	42	6.43	-121	0.52	0.65
1010	7.19	120	200	14.2	42	6.55	-129	0.49	0.70
1015	7.19	120	200	14.2	42	6.59	-133	0.45	0.35
1020	7.19	120	200	14.2	42	6.6	-134	0.43	0.35
1025	7.19	120	200	14.1	42	6.61	-136	0.40	0.15
1030	7.19	120	200	14.1	42	6.61	-137	0.38	0.05
1035	7.19	120	200	14.0	42	6.61	-139	0.36	0.00
1037	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: MW-6 Date: 7/30/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 15 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1110	9.09	150	250	--	--	--	--	--	--
1115	9.25	150	250	12.2	36.3	6.25	25	0.46	3.3
1120	9.26	150	200	12.1	35.2	6.22	26	0.28	1.6
1125	9.26	150	200	12.0	34.8	6.21	26	0.25	2.9
1130	9.26	150	200	12.0	34.7	6.16	28	0.23	1.40
1135	9.26	150	200	12.0	34.6	6.11	30	0.22	0.80
1140	9.26	150	200	12.0	34.6	6.08	31	0.23	0.40
1145	9.26	150	200	12.0	34.7	6.03	33	0.23	0.05
1150	9.26	150	250	11.9	34.6	6.00	35	0.25	0.00
1155	9.26	150	200	12.0	34.6	5.98	36	0.23	0.00
1200	9.26	150	200	12.1	34.6	5.98	36	0.23	0.00
1205	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) Factory H Meriden, CT
Well Number: VMCC MW-2 Date: 7/30/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 10 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1110	7.22	150	250	--	--	--	--	--	--
1115	7.28	150	250	13.4	53	6.56	177	1.03	3.4
1120	7.28	150	250	13.3	52	6.24	175	0.44	0.7
1125	7.28	150	250	13.2	52	6.13	171	0.39	0.3
1130	7.28	150	250	13.1	53	6.12	166	0.35	0.25
1135	7.28	150	250	13.2	52	6.12	162	0.34	0.10
1140	7.28	150	250	13.1	52	6.14	158	0.36	0.00
1142	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-1 Date: 7/30/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 12 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1300	8.62	150	--	--	--	--	--	--	--
1305	8.64	150	200	16.0	52.4	7.80	264	4.44	0.25
1310	8.64	150	225	15.7	52.3	7.84	270	4.39	0.20
1315	8.65	150	225	15.7	52.1	7.86	276	4.40	0.05
1320	8.65	150	225	15.7	51.3	7.87	282	4.35	0.00
1325	8.65	150	250	15.7	51.2	7.87	285	4.34	0.10
1330	8.65	150	225	15.9	50.9	7.89	288	4.34	0.15
1335	8.65	150	225	15.8	50.8	7.88	290	4.32	0.00
1340	8.65	150	225	15.8	50.5	7.87	292	4.31	0.00
1345	8.65	150	225	15.7	50.5	7.85	294	4.30	0.00
0:00	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-3 Date: 7/31/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 11 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
810	6.13	150	225	--	--	--	--	--	--
815	6.17	150	225	16.7	71	6.42	-50	1.31	1.1
820	6.18	150	225	17.0	70	6.34	-63	0.42	1.2
825	6.18	150	225	17.3	70	6.37	-68	0.38	1.5
830	6.18	150	225	17.5	71	6.37	-70	0.36	1.2
835	6.18	150	225	17.8	72	6.36	-74	0.35	1.3
840	6.18	150	225	17.9	74	6.36	-79	0.34	0.75
845	6.18	150	225	18.0	75	6.35	-83	0.34	0.15
850	6.18	150	225	18.1	76	6.36	-86	0.34	0.10
900	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-4 Date: 7/31/01
Field Personnel: Corey Rousseau
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 11 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
815	8.00	150	--	--	--	--	--	--	--
820	8.01	150	200	19.3	0.140	6.84	122	0.76	0.00
825	8.01	150	200	19.5	0.140	6.85	108	0.55	0.00
830	8.01	150	200	19.7	0.140	6.86	92	0.46	0.00
835	8.01	150	200	19.8	0.139	6.86	81	0.46	0.00
840	8.01	150	200	19.9	0.139	6.86	69	0.40	0.00
845	8.01	150	200	19.8	0.139	6.86	65	0.35	0.00
850	8.01	150	200	20.0	0.139	6.86	60	0.37	0.00
855	8.01	150	200	19.9	0.138	6.83	58	0.40	0.00
900	8.01	150	200	19.8	0.138	6.83	54	0.44	0.00
905	8.01	150	200	19.8	0.138	6.84	52	0.43	0.00
910	8.01	150	200	19.9	0.138	6.85	49	0.46	0.00
915	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

Well Sampling - Field Water Quality Measurements

Location: (Site/Facility Name) HUB Mall Meriden, CT
Well Number: MW-5 Date: 7/30/01
Field Personnel: Amy Adams
Sampling Organization: Nobis Engineering, Inc.

Identify MP:
Pump Intake at (ft. below MP): 9 feet
Purging Device; (pump type): peristaltic

Clock Time (24 HR)	Water Depth Below MP (ft)	Pump Dial[1]	Purge Rate (ml/min)	Temp. (C) (3%)	Specific Conduc.[2] (mS/m) (3%)	pH (+/-0.1)	ORP/ Eh[3] (mv) (+/-10)	DO (mg/L) (10%)	Turbidity (NTU) (10%,<1)
1305	5.41	150	400	--	--	--	--	--	--
1310	5.79	150	400	19.5	79	6.87	22	0.69	1.5
1315	5.77	120	225	19.9	79	6.90	-24	0.59	5.5
1320	5.78	120	225	19.7	79	6.91	-52	0.50	3.4
1325	5.78	120	225	19.9	79	6.92	-69	0.47	3.1
1330	5.78	120	225	19.8	79	6.93	-75	0.47	2.5
1335	5.78	120	225	19.9	79	6.94	-78	0.46	2.1
1340	5.78	120	225	19.8	79	6.94	-80	0.46	2.3
1345	5.78	120	225	19.8	79	6.94	-82	0.43	0.9
1350	5.78	120	225	19.8	78	6.95	-83	0.46	1.0
1355	5.78	120	225	19.8	78	6.95	-84	0.47	1.0
1357	Sampled								

1. Pump dial setting (for example: hertz, cycles/min, etc)
2. MilliSiemens per cm (same as mmhos/cm) at 25C
3. Oxidation reduction potential (stand in for Eh)

APPENDIX D

Nobis CONCORD, NH - LAWRENCE, MA	PROJECT FACTORY H MERIDEN, CONNECTICUT	WELL NO. FD-01-3 SHEET 4 of 4 FILE NO. 67030 T500 CHKD. BY

Boring Co.	Mark Schock Glacier Drilling	Boring Location	See Site Sketch
Driller	Mark Schock	Top of PVC Elev.	TBM
Engineer	Courtney Moore	Date Start 7/24/01	Date End 7/24/01

Sampler: Unless otherwise noted, sampler consists of a 2-inch split spoon driven by a 140-lb. hammer free-falling 30-inches.

Casing: Unless otherwise noted, casing driven using a 300-lb. hammer falling 24-inches.

Casing Size: Other: 4-1/4-inch hollow-stem auger

Groundwater Readings (from top of PVC)

Date	Time	Depth	Elev.	Stabilization Time
			0	upon completion

DEPTH	SAMPLE No.	PEN/ REC.	DEPTH (ft)	BLOWS/6"	PID (ppm)	SAMPLE DESCRIPTION BURMISTER CLASSIFICATION	STRATUM DESC.	WELL INSTALLATION	REMKS
									2
50	15	24/18	50-52	2/7	0	Reddish Brown Medium Dense Silty Sand with clay			
				15/100		and gravel, saturated. (SW)			
									2
						Auger refusal at 52' bgs.			
55									
60									

REMARKS:

2) No groundwater monitoring well was installed at this boring location

NOTES:

1) Stratification lines represent approximate boundaries between soil types; Actual transitions may be gradual and varied.
2) Fluctuations in water levels will occur due to conditions different from those present at the time these measurements were made.
3) PID=in-air concentration of total volatile organic compounds (VOCs) as measured with a photoionization detector (PID). Readings less than 1.0 are considered 'Below Detection'.

Selected Year 2003

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID 0105--002-2-00-01-0

CARD # 02 OF 02

OWNERSHIP & MAILING ADDRESS

MERIDEN ECONOMIC RESOURCES GRO INC
C/O KINGSBROOK DEVELOPMENT CORP
290 PRATT ST
MERIDEN CT 06450

PROPERTY LOCATION

77 STATE ST

ASSESSMENT HISTORY

same

YEAR	LAND	USE	IMPROVEMENT	TOTAL
2003	288,600	288,600	983,400	1,272,000

NBHD	C1	INNER CITY AREA
DESIRE	2	Fair
TREND	02	Static
STATECODE	2-20	Comm Buildings
USECODE	353	Retail Store
ZONING	C-1	C-1
PROP.TYPE	4	Commercial
TOPO	04	Rolling
ACCESS	5	Paved
UTILITIES	09	All
MAG. DIST		
TAX STATUS	1	Reg. Taxable
FRANCHISE		
CI TYPE	1	Commercial Business District
ACRES	6.9700	

SALES HISTORY

PREV. OWNER	TYPE	SALESDATE	BOOK PAGE	VALIDITY	SALE PRICE
	Improved/Bldg	03/02/1995	2083 0342		3,000,000

APPROACH TO VALUE

COST

	LAND	CURRENT USE	IMPROVEMENTS	TOTALS
COST	$288,600	$0	$983,400	$1,272,000
INCOME	$288,600	$0	$2,100,400	$2,389,000
MARKET	$288,600	$0	$0	$288,600
OVERRIDE	$0	$0	$0	$0
O/R REASON				

BUILDING PERMITS

DATE	NUMBER	VALUE	DESCRIPTION OF WORK
04/29/2002	1374	750	3'X7' METAL DOOR/CLOSE 14
04/29/2002	1375	2000	MISC ELEC WORK
03/08/2002	755	3800	PART WALLS INST 3 DRS &VC

LAND INFORMATION

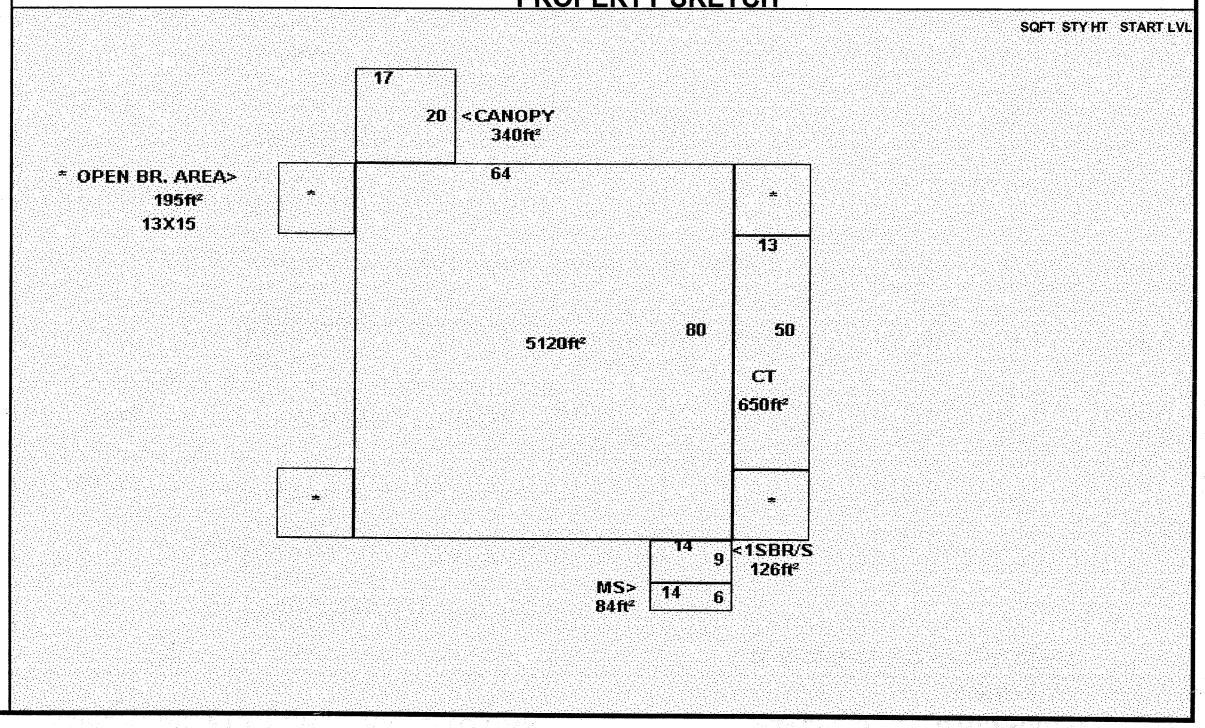
TYPE	DESCRIPTION	ACRE	SQFT	UNITS	BASERATE	OVER RIDE	DEPTH FACTOR	ADJ RATE	LAND ADJUSTMENTS 1	2	3	4	VALUE

TOTAL ACRE

TOTAL MARKET LAND VALUE 288,600

PROPERTY PHOTO

PROPERTY SKETCH



(owners)

LIST-ID 6CK REV-ID
LIST-DATE 07/16/2001 REV-DATE / /
ENTRY CODE 6 CONTACT ESTIMATE RECHECK ES

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID **0105--002-2-00-01-0**
CARD # 02 OF 02

SECTION#1

TOTAL FLOOR AREA 5246
OF STORIES SECT 1.00 BLDG 1.00
PERIM/SHAPE 2
STY HT 12

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK
304 Bank	100	C	1.0

HEATING & COOLING	%	EXTERIOR WALLS	%
612 Warm & Cool Air	100	807 -Brick, Solid	100

SPRINKLERS	%	ELEVATOR TYPE	#	STOPS

EFF AGE 17
CONDITION
DEPRECIATION = M & S
PHYSICAL 0.0
FUNCTIONAL 0.0 M&S 18.0000
EXTERNAL 0.0
OVERALL 0

BASEMENT

FIREPROOF
.F.

OCCUPANCY	TYPE	AREA	HEAT/AC	AREA	%

LEVEL SHAPE/PER. DEPTH

SECTION#2

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK

HEATING & COOLING	%	EXTERIOR WALLS	%

SPRINKLERS	%	ELEVATOR TYPE	#	STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 18.0000
EXTERNAL
OVERALL

SECTION#3

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK

HEATING & COOLING	%	EXTERIOR WALLS	%

SPRINKLERS	%	ELEVATOR TYPE	#	STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 18.0000
EXTERNAL
OVERALL

SECTION#4

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK

HEATING & COOLING	%	EXTERIOR WALLS	%

SPRINKLERS	%	ELEVATOR TYPE	#	STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 18.0000
EXTERNAL
OVERALL

FEATURES

DESCRIPTION	AREA	RANK	DEPR
		0.0	0
		0.0	0

NOTES

PARCEL NOTES:
COST NOTES:
COMMENTS:
PUBLIC NOTES:

ADDITIONS

ID	TYPE	AREA	YR BLT	EFF AGE	PRICING	RATE	RCN
07	Canopy	340	1971	0	R	4.25	1,450
06	Patio	650	1971	0	R	2.85	1,850

BUILDING COST LADDER

Cost as of 07/2001

All Sections

Basic Structure	Units/%	Cost	Total
Base Cost	5,246	61.97	325,095
Exterior Walls	5,246	16.03	84,093
Heating & Cooling	5,246	11.77	61,745
Basic Structure Cost	5,246	89.77	470,933
Less Depreciation			
Physical & Functional	<18.0%>		<84,768>
Depreciated Cost	5,246	73.61	386,165
Rounded to Nearest	$ 100		386,200

SUMMARY	TOTAL
M&S BUILDING RCNLD	386,200
ADDITIONS RCNLD	2,710
RCNLD SUMMARY	388,910
OUTBUILDINGS RCNLD	
TOTAL CARD VALUE	233,310
TOTAL MARKET LAND VALUE	288,600
TOTAL COST MARKET VALUE LAND + BLDGS	$ 521,900

OUT BUILDINGS

ID	TYPE	IMPROVEMENTS	UNITS	YR BLT	EFFYR BLT	GRADE	GRD ADJ.	COND	SIZE	AREA	RATE	PRICING	RCN	DEPR	O/R	RCNLD

Selected Year 2003

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID 0105--002-2-00-01-0

CARD # 01 OF 02

OWNERSHIP & MAILING ADDRESS

MERIDEN ECONOMIC RESOURCES GRO INC
C/O KINGSBROOK DEVELOPMENT CORP
290 PRATT ST
MERIDEN CT 06450

PROPERTY LOCATION

77 STATE ST

SALES HISTORY

PREV. OWNER	TYPE	SALESDATE	BOOK	PAGE	VALIDITY	SALE PRICE
	Improved/Bldg	03/02/1995	2083	0342		3,000,000

ASSESSMENT HISTORY

YEAR	LAND	USE	IMPROVEMENT	TOTAL
2003	288,600	288,600	983,400	1,272,000

APPROACH TO VALUE COST

	LAND	CURRENT USE	IMPROVEMENTS	TOTALS
COST	$288,600	$0	$983,400	$1,272,000
INCOME	$288,600	$0	$2,100,400	$2,389,000
MARKET	$288,600	$0	$0	$288,600
OVERRIDE	$0	$0	$0	$0
O/R REASON				

BUILDING PERMITS

DATE	NUMBER	VALUE	DESCRIPTION OF WORK
04/29/2002	1374	750	3'X7' METAL DOOR/CLOSE 14
04/29/2002	1375	2000	MISC ELEC WORK
03/08/2002	755	3800	PART WALLS INST 3 DRS &VC

NBHD	C1	INNER CITY AREA
DESIRE	2	Fair
TREND	02	Static
STATECODE	2-20	Comm Buildings
USECODE	353	Retail Store
ZONING	C-1	C-1
PROP.TYPE	4	Commercial
TOPO	04	Rolling
ACCESS	5	Paved
UTILITIES	09	All
MAG. DIST		
TAX STATUS	1	Reg. Taxable
FRANCHISE		
CI TYPE	1	Commercial Business District
ACRES	6.9700	

LAND INFORMATION

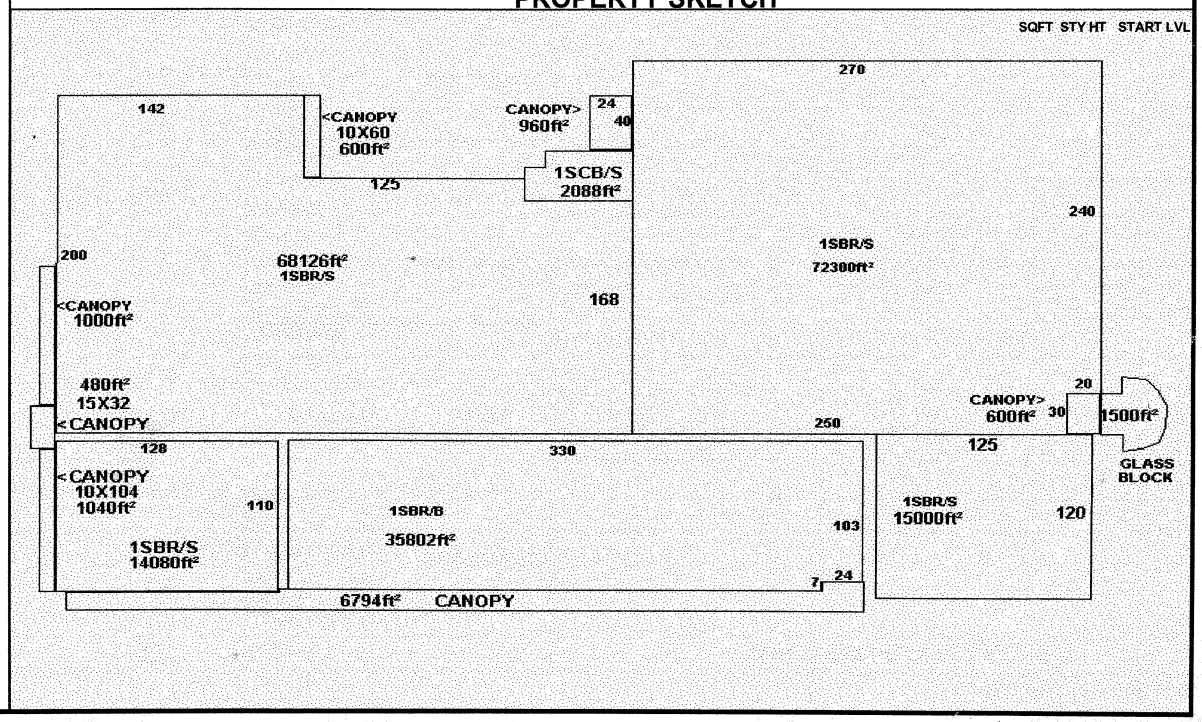
TYPE	DESCRIPTION	ACRE	SQFT	UNITS	BASERATE	OVER RIDE	DEPTH FACTOR	ADJ RATE	LAND ADJUSTMENTS 1	2	3	4	VALUE
SQ	SQUARE FOOT	6.9700	303450	0.000	9.00		0	6.34	15	0	0	0	288,580

TOTAL ACRE 6.9700

TOTAL MARKET LAND VALUE 288,600

PROPERTY PHOTO

PROPERTY SKETCH



LIST-ID 6CK REV-ID
LIST-DATE 07/16/2001 REV-DATE / /
ENTRY CODE 6 CONTACT ESTIMATE RECHECK ES

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID **0105--002-2-00-01-0**
CARD # 01 OF 02

SECTION#1

TOTAL FLOOR AREA 82958
OF STORIES SECT 1.00 BLDG 1.00
PERIM/SHAPE 4
STY HT 16

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK
353 Retail Store	30	C	1.0
494 Industrial Light Manufacturing	70	C	1.0
HEATING & COOLING	%	EXTERIOR WALLS	%
612 Warm & Cool Air	100	807 -Brick, Solid	100
SPRINKLERS	%	ELEVATOR TYPE	# STOPS
681	100		

EFF AGE 17
CONDITION 3 Average
DEPRECIATION = M & S
PHYSICAL 0.0
FUNCTIONAL 0.0 M&S 69.0000
EXTERNAL 45.0
OVERALL 0

BASEMENT

OCCUPANCY TYPE AREA HEAT/AC AREA %
FIREPROOF
.F.
LEVEL SHAPE/PER. DEPTH

SECTION#2

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK
HEATING & COOLING	%	EXTERIOR WALLS	%
SPRINKLERS	%	ELEVATOR TYPE	# STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 69.0000
EXTERNAL
OVERALL

SECTION#3

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK
HEATING & COOLING	%	EXTERIOR WALLS	%
SPRINKLERS	%	ELEVATOR TYPE	# STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 69.0000
EXTERNAL
OVERALL

SECTION#4

TOTAL FLOOR AREA
OF STORIES SECT BLDG
PERIM/SHAPE
STY HT

YR BLT 1971
YR RMD.
FRANCHISE

OCC	%	CLASS	RANK
HEATING & COOLING	%	EXTERIOR WALLS	%
SPRINKLERS	%	ELEVATOR TYPE	# STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 69.0000
EXTERNAL
OVERALL

FEATURES

DESCRIPTION	AREA	RANK	DEPR
		0.0	0
		0.0	0
		0.0	0
		0.0	0

ADDITIONS

ID	TYPE	AREA	YR BLT	EFF AGE	PRICING	RATE	RCN
	07 Canopy	1000	1971	0	R	4.25	4,250
	07 Canopy	480	1971	0	R	4.25	2,040
	07 Canopy	1040	1971	0	R	4.25	4,420
	07 Canopy	600	1971	0	R	4.25	2,550
	07 Canopy	960	1971	0	R	4.25	4,080
	07 Canopy	600	1971	0	R	4.25	2,550
	07 Canopy	1500	1971	0	R	4.25	6,380
	07 Canopy	6794	1971	0	R	4.25	28,870

NOTES

PARCEL NOTES: part of value is on 105-22-1
this value includes bank,40%bldg,50%land,60%paving
COST NOTES:
COMMENTS: LOOKS LIKE THERE IS ABOUT 36,000 SQFT OF VACANT SPACE
5100SQFT OF COMMON HALLWAY NOT INCLUDED IN TOTAL SQUARE FOOTAGE
ROUGHLY 130,000 SQFT IS RADIO FREQUENCY SYSTEMS
PUBLIC NOTES:

BUILDING COST LADDER

Cost as of 07/2001

All Sections

Basic Structure	Units/%	Cost	Total
Base Cost	82,958	17.86	1,481,630
Exterior Walls	82,958	10.20	846,172
Heating & Cooling	82,958	7.36	610,571
Sprinklers	82,958	1.30	107,845
Basic Structure Cost	82,958	36.72	3,046,218
Less Depreciation			
Physical & Functional	<24.0%>		<731,092>
External	<45.0%>		<1,370,798>
Depreciated Cost	82,958	11.38	944,328
Rounded to Nearest	$ 100		944,300

SUMMARY	TOTAL
M&S BUILDING RCNLD	944,300
ADDITIONS RCNLD	67,150
RCNLD SUMMARY	1,011,450
OUTBUILDINGS RCNLD	143,200
TOTAL CARD VALUE	750,050
TOTAL MARKET LAND VALUE	288,600
TOTAL COST MARKET VALUE LAND + BLDGS	$ 1,038,700

OUT BUILDINGS

ID	TYPE	IMPROVEMENTS	UNITS	YR BLT	EFFYR BLT	GRADE	GRD ADJ.	COND	SIZE	AREA	RATE	PRICING	RCN	DEPR	O/R	RCNLD
	28	Paving (large)	1	1971	1971	C	0.00	AVERAGE	0x0	180,000	1.70	R	306,000	22.0		238,700

LIST-ID 5CK REV-ID
LIST-DATE 06/29/2001 REV-DATE / /
ENTRY CODE 7 CONTACT RECHECK

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID **0105--002-2-00-1A-0**
CARD # 01 OF 01

SECTION#1

TOTAL FLOOR AREA 6175
YR BLT 1970
OF STORIES SECT 1.00 BLDG 1.00
YR RMD.
PERIM/SHAPE 2 FRANCHISE
STY HT 10

OCC	%	CLASS	RANK
304 Bank	100	C	2.0

HEATING & COOLING	%	EXTERIOR WALLS	%
612 Warm & Cool Air	100	868 -Pre-Fab Pnls, Met & Gls	50
		849 -Metal & Glass Panels	50

SPRINKLERS % ELEVATOR TYPE # STOPS

EFF AGE 19
CONDITION 3 Average
DEPRECIATION = M & S
PHYSICAL 0.0
FUNCTIONAL 0.0 M&S 46.0001
EXTERNAL 30.0
OVERALL 0

BASEMENT

OCCUPANCY TYPE AREA HEAT/AC AREA %
FIREPROOF
.F.
LEVEL SHAPE/PER. DEPTH

SECTION#2

TOTAL FLOOR AREA
YR BLT 1970
OF STORIES SECT BLDG
YR RMD.
PERIM/SHAPE FRANCHISE
STY HT

OCC % CLASS RANK
HEATING & COOLING % EXTERIOR WALLS %
SPRINKLERS % ELEVATOR TYPE # STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 46.0001
EXTERNAL
OVERALL

SECTION#3

TOTAL FLOOR AREA
YR BLT 1970
OF STORIES SECT BLDG
YR RMD.
PERIM/SHAPE FRANCHISE
STY HT

OCC % CLASS RANK
HEATING & COOLING % EXTERIOR WALLS %
SPRINKLERS % ELEVATOR TYPE # STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 46.0001
EXTERNAL
OVERALL

SECTION#4

TOTAL FLOOR AREA
YR BLT 1970
OF STORIES SECT BLDG
YR RMD.
PERIM/SHAPE FRANCHISE
STY HT

OCC % CLASS RANK
HEATING & COOLING % EXTERIOR WALLS %
SPRINKLERS % ELEVATOR TYPE # STOPS

EFF AGE
CONDITION
DEPRECIATION
PHYSICAL
FUNCTIONAL M&S 46.0001
EXTERNAL
OVERALL

FEATURES

DESCRIPTION	AREA	RANK	DEPR
763 Mezzanine-Storage	6175	2.0	0
		0.0	0

NOTES

PARCEL NOTES:
COST NOTES:
COMMENTS:
PUBLIC NOTES:

ADDITIONS

ID	TYPE	AREA	YR BLT	EFF AGE	PRICING	RATE	RCN
	07 Canopy	280	1970	17	R	4.34	1,220

BUILDING COST LADDER

Cost as of 07/2001

All Sections

Basic Structure	Units/%	Cost	Total
Base Cost	6,175	78.17	482,700
Exterior Walls	6,176	19.31	119,228
Heating & Cooling	6,175	11.09	68,481
Mezzanine	6,175	13.98	86,326
Basic Structure Cost	6,175	122.55	756,735
Less Depreciation			
Physical & Functional	<16.0%>		<121,078>
External	<30.0%>		<227,021>
Depreciated Cost	6,175	66.18	408,636
Rounded to Nearest	$ 100		408,600

SUMMARY	TOTAL
M&S BUILDING RCNLD	408,600
ADDITIONS RCNLD	660
RCNLD SUMMARY	409,260
OUTBUILDINGS RCNLD	17,500
TOTAL CARD VALUE	426,760
TOTAL MARKET LAND VALUE	214,800
TOTAL COST MARKET VALUE LAND + BLDGS	$ 641,600

OUT BUILDINGS

ID	TYPE	IMPROVEMENTS	UNITS	YR BLT	EFFYR BLT	GRADE	GRD ADJ.	COND	SIZE	AREA	RATE	PRICING	RCN	DEPR	O/R	RCNLD
	26	Paving (Small)	1	1970	1970	D	0.00	FAIR	0x0	14,500	1.70	R	24,650	29.0		17,500

Selected Year 2003

COMMERCIAL PROPERTY RECORD CARD

PARCEL ID 0105--002-2-00-1A-0

CARD # 01 OF 01

OWNERSHIP & MAILING ADDRESS

MERIDEN ECONOMIC RESOURCES GRO INC
C/O KINGSBROOK DEVELO CORP
290 PRATT ST
MERIDEN CT 06450

PROPERTY LOCATION

50 EAST MAIN ST

SALES HISTORY

PREV. OWNER	TYPE	SALESDATE	BOOK PAGE	VALIDITY	SALE PRICE
	Improved/Bldg	03/02/1995	2083 0342		3,000,000

ASSESSMENT HISTORY

YEAR	LAND	USE	IMPROVEMENT	TOTAL
2003	214,800	214,800	426,800	641,600

APPROACH TO VALUE

COST

	LAND	CURRENT USE	IMPROVEMENTS	TOTALS
COST	$214,800	$0	$426,800	$641,600
INCOME	$214,800	$0	$392,900	$607,700
MARKET	$214,800	$0	$0	$214,800
OVERRIDE	$0	$0	$0	$0

O/R REASON

BUILDING PERMITS

DATE	NUMBER	VALUE	DESCRIPTION OF WORK

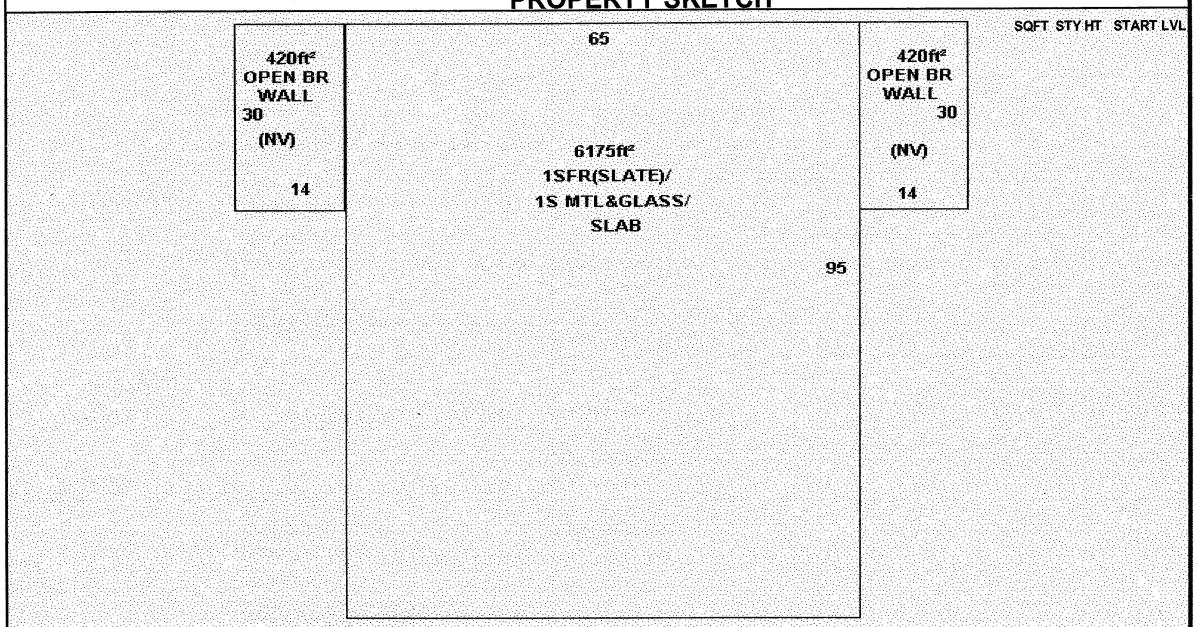
NBHD	C5A	EAST MAIN ST. INNER CITY
DESIRE	3	Average
TREND	02	Static
STATECODE	2-20	Comm Buildings
USECODE	304	Bank
ZONING	C-1	C-1
PROP.TYPE	4	Commercial
TOPO	01	Level
ACCESS	5	Paved
UTILITIES	09	All
MAG. DIST		
TAX STATUS	1	Reg. Taxable
FRANCHISE		
CI TYPE	1	Commercial Business District
ACRES	0.4400	

LAND INFORMATION

TYPE	DESCRIPTION	ACRE	SQFT	UNITS	BASERATE	OVER RIDE	DEPTH FACTOR	ADJ RATE	LAND ADJUSTMENTS 1	2	3	4	VALUE
SQ	SQUARE FOOT	0.4400	19126	0.000	14.00		0	11.23	0	0	0	0	214,780

TOTAL ACRE 0.4400

TOTAL MARKET LAND VALUE 214,800

PROPERTY PHOTO

PROPERTY SKETCH