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PHASE II
ENVIRONMENTAL SITE ASSESSMENT
TANK PULL/SOIL REMEDIATION

811 Middle Street
Middletown, Connecticut

JUNE 1997

Prepared for:

CES, Inc.
Clinton, Connecticut

Prepared by:

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EXECUTIVE SUMMARY

The purpose of this Phase II Environmental Site Assessment (ESA) was to provide actual data regarding the quality of soil and groundwater at the site. Historically the site was primarily utilized as a dairy farm and milk bottling facility until the early to mid 1980s. During Phase I and Phase II activities, it was determined that the site was serviced by two gasoline underground storage tanks (USTs) and two septic systems. During the removal of a 550 gallon UST, a release was detected and impacted soil was removed. According to analytical results from samples collected at both UST grave locations, impacted soils have been removed to levels below the current Connecticut Remediation Standard Regulations (RSR) at the site. Petroleum impacted ground water may have migrated to the adjacent properties. Phase II (ESA) and soil remediation activities are summarized below.

Four soil boring/monitoring well locations (MW-1, MW-2, MW-3 and MW-4) were completed in areas with the potential to have been impacted by on-site or off-site sources. Soil samples were collected from each location and the sample with the highest PID reading or other evidence of contamination was submitted for laboratory analysis for VOCs, the RCRA 8 metals, TPH, PCBs and Pesticides.

The soil analytical data has been compared to the numerical criteria for regulated compounds established in the Connecticut Department of Environmental Protection (DEP) Remediation Standard Regulations (RSR). The numerical criteria utilized are for GA/GAA ground water classification and residential areas, in which the site is located.

No VOCs, PCB or pesticide compounds were detected in any of the soil samples submitted from the boring/monitoring well locations. Detected levels of total petroleum hydrocarbon (TPH) at two of the boring/monitoring well locations were below the RSR Pollutant Mobility Criteria (PMC) and the Residential Direct Exposure Criteria (RES DEC) of 500 ppm, and are likely naturally occurring.

Barium was detected at all four boring/monitoring well soil sampling locations. Barium exceeded the RSR GA PMC of 1.0 ppm at one location. The presence of Barium is likely to be naturally occurring, and not due to past site activities.

Ground water was collected from the four monitoring wells (MW-1, MW-2, MW-3 and MW-4) and the existing potable/water supply wells (SW-1). The groundwater samples were submitted to a Connecticut certified laboratory for analysis of VOCs, the 8 RCRA metals, TPH, PCBs and Pesticides. The analytical data has been compared to the numerical criteria for regulated compounds for GA/GAA ground water classification areas established in the RSR.

No PCBs or Pesticides were detected in any of the water samples. The only VOC detected is methyl-tert-butyl ether (MTBE). MTBE was detected in MW-1, MW-3 and MW-4 at levels of 2.0 ppb, 6.0 ppb, and 5.0 ppb, respectively, all below the GA/GAA Ground Water Protection Criteria (GWPC) of 100 ppb.

TPH was detected in water samples collected from MW-1, MW-2, MW-3 and MW-4 at levels of 0.9 ppm, 0.7 ppm, 0.6 ppm and 0.5 ppm, respectively. The detected levels of TPH were at or above the GWPC of 0.5 ppm,

Low levels of chromium (total) and cadmium were detected at monitoring well MW-3. Low levels of lead were detected at SW-1 and MW-3. The low levels of lead, chromium (total), and cadmium detected are likely naturally occurring.

Based on low concentrations of MTBE and TPH detected in groundwater and the surficial groundwater flow direction, it was apparent that a possible contaminant source was present on the site. To address this concern, additional test pit exploration was conducted in the vicinity of a former 1,000-gallon gasoline UST, and a 550 gallon gasoline UST was located and removed.

Soils beneath the 550-gallon UST were impacted from weathered gasoline. The CT DEP Oil and Chemical Spills Unit and Middletown Fire Marshal were notified of the spill. Contaminated soils were removed and composite floor and wall samples were collected to confirm the removal of impacted soils. The composite samples were analyzed by a Connecticut certified laboratory for TPH, VOC and Lead, confirming the removal of impacted soils.

A composite soil sample collected beneath three 55-gallon drums which were buried within the former 1,000-gallon UST tank grave showed no sign of any contamination.

Suspect asbestos containing building materials collected from two trawled surfaces and one insulation material within the former milk bottling facility were analyzed by a Connecticut certified laboratory. No detectable asbestos fibers were reported in these materials.

1.0 INTRODUCTION

1.1 *Purpose of Study*

The purpose of this Phase II Environmental Site Assessment (ESA) was to evaluate if any on-site surface or subsurface contamination due to spills of oils or hazardous chemicals resulting from past and present site operations and/or land use activities has occurred; and to determine the potential environmental liability associated with such impacts, if any. The Scope of Work for this Phase II ESA is based on findings and observations documented by Marin Environmental, Inc. (MARIN) during completion of the Phase I ESA dated May, 1997. During the completion of the Phase II ESA, soil remediation activities took place. Soil remediation is discussed in section 5.0. The Phase I ESA is included in separate text.

1.2 *Property Location and Ownership*

The property is located at 811 Middle Street in Middletown, Connecticut. The site is currently vacant, and was historically occupied by a dairy facility until the early 1980s. The site is referenced by the Middletown Tax Assessor as Map 5, Block 6-1, Lot 22. The current property owner is the City of Middletown. See Figure 1 for the site location and Figure 2 for the site sketch.

1.3 *Date of Study*

Authorization to proceed on this project was granted from Mr. Timothy Dahlgren of CES, Inc. on May 15, 1997. Authorization/right of entry was authorized by Mayor Maria Madsen Holzberg of the City of Middletown on May 16, 1997. Phase II activities were performed on May 19 and 20, 1997. Soil remediation activities took place on June

2, 3 and 4, 1997. Research and laboratory analysis were completed on June 9, 1997. The final report is dated June, 1997.

1.4 *Scope of Work*

The following scope of work was performed in accordance with standard protocols for Phase II Environmental Site Assessments:

1. During completion of the Phase I ESA, a MARIN Environmental Scientist inspected the site to determine the locations of potential contaminant sources. Call Before You Dig was notified (call #972001833) and potential subsurface investigation locations were flagged.

2. Soil borings were completed at four locations across the site. MARIN arranged for and supervised the boring installations. Boring installation took one day to complete. During boring installation, soil samples were collected using a split spoon sampler, and field screened with a portable photoionization detector (PID) for the presence of regulated volatile organic compounds. Soil samples were collected in advance of the boring augers. The soil borings were intended to evaluate possible contamination in the subsurface soil resulting from historic on-site spills and releases.

3. Ground water monitor wells were installed at the four boring locations using 2" PVC screen and riser. Monitor wells were installed approximately 4-9' into the water table. Locking steel riser well protectors with a concrete collar were installed to protect the wells from vandalism or unauthorized use.

4. The four ground water monitoring wells and existing bedrock site supply well were gauged, purged and sampled. An elevation survey was completed to determine the direction of ground water flow across the site.

5. Four soil samples, and five water samples, were submitted to Connecticut Testing Laboratory of Meriden, Connecticut for quantitative analyses for VOCs by Method 8240, TPH by 418.1, RCRA 8 Metals, PCB, and pesticides by Method 8080.

6. Laboratory analytical data has been evaluated and compared to the Connecticut Department of Environmental Protection Remediation Standard Regulations to determine required remedial action, and to determine if any additional environmental work is required on-site.

7. Based on the findings of the Phase II ESA, additional subsurface investigation work and soil remediation took place. Soil remediation is discussed in section 5.0.

1.5 *Previous Environmental Site Assessments*

A Phase I ESA was completed by MARIN in May, 1997 concurrent to Phase II ESA activities. A copy of the Level I ESA is included as separate text. Based on findings of the Level I ESA, MARIN recommended a subsurface investigation to:

- evaluate potential environmental impacts of on-site septic systems;
- evaluate ground water flow conditions on-site and the potential for on and/or off-site contaminants to migrate; and
- to document conditions associated with historic underground storage tanks utilized on-site for gasoline storage.

2.0 FIELD ACTIVITIES

Based on the potential for on-site activities and releases to have impacted the subject site, a Phase II investigation was initiated in order to evaluate soil and ground water quality. Phase II activities focused on whether possible on-site source areas, including historic UST, ASTs, and septic fields, and discharge points, may have impacted soil or ground water quality thereby necessitating clean-up. The Phase II ESA was also designed to determine if off-site activities have impacted soil or groundwater at the site. Soil and ground water sampling procedures, as well as the rationale for each sampling location, are described below.

2.1 *Pre-Drilling Activities*

Pre-drilling activities for the subject site included completing the Phase I ESA and scheduling drilling with a subcontractor, determining and marking boring/monitor well locations, and obtaining a "Call Before You Dig" confirmation number.

2.2 *Monitor Well Installation*

Four (4) subsurface borings, completed as ground water monitoring wells, labeled MW-1, MW-2, MW-3, and MW-4, were installed on May 19, 1997 by Glacier Drilling under the supervision of a MARIN Field Scientist. The monitoring wells were installed in areas with the potential to have been impacted by on-site and off-site sources of contamination. The monitoring wells were drilled using four and one quarter inch inner diameter hollow stem augers and constructed of two-inch PVC screen and riser, each with ten feet of 0.010 slot screen.

The annular space around the monitoring wells was backfilled with coarse sand, to about 2 feet above the top of the screen. A bentonite seal with a thickness of one-two feet was placed above the sand pack. The remaining annular space, if any, was backfilled

with native materials. Lockable steel riser protectors were cemented in place for all the monitoring wells.

The locations of the boring/monitoring wells are shown on Figure 2, the site plan. The locations were chosen to evaluate if potential sources of contamination have impacted the site, and to provide special coverage of the site to prepare a ground water contour map.

Monitoring well MW-1 was installed in an assumed downgradient direction from the on-site septic systems southwest of the former milk bottling building. MW-2 was installed downgradient of site development areas. MW-3 was installed in an assumed downgradient of a direction the reported former 1,000-gallon gasoline UST grave location. MW-4 was installed along the northeast portion of the site to monitor the potential of contaminants migrating off the site.

Boring logs and details of monitor well construction may be found in Appendix A, and are summarized below. No boring log was found during the Phase I ESA for the on-site supply well. The supply well boring depth and depth to water has been measured. Based on area geology, the supply well is believed to be a shallow bedrock well.

MONITORING WELL DESCRIPTIONS

MONITORING WELL	DEPTH OF BORING	DEPTH TO GROUND WATER	DESCRIPTION OF SEDIMENTS
MW-1	12.0'	4.16'	Red/brown fine to medium sands, some silt, trace clay, trace gravel
MW-2	17.0'	9.21'	Red/brown fine to medium sands, some silt, trace clay, trace gravel. Suspect till (dry) at 15' (BGS)
MW-3	11.5'	4.81'	Red/brown fine to medium sands, some silt, trace clay, trace gravel
MW-4	17.5'	3.22'	Red/brown fine to medium sands, some silt, trace clay, trace gravel
Supply Well	61.5'	20.62'	Unknown

Note: Depth to water table from top of protector not grade surface (taken 5-20-97).
BGS: Below grade surface

2.3 Soil Sampling and Field Screening

During soil boring/monitoring well installation, soil samples were collected from each boring with a split spoon sampler. The soil samples were collected to:

- visually inspect and document the soil types;
- visually inspect and determine the presence or absence of gross contamination;
- field screen for the presence of volatile organic compounds (VOCs); and
- analyze select samples for selected chemical constituents.

Soil types observed at 811 Middle Street in Middletown included red-brown fine-medium sands with traces of silt, clay, and gravel. Detailed soil descriptions appear on the boring logs included in Appendix A.

No evidence of gross contamination was observed in any of the soil samples. A portion of each split spoon sample was placed in a plastic bag and screened for the presence of VOCs with a photo-ionization detector (PID). After allowing each sample to equilibrate with the headspace in the bag, the PID was inserted in a small opening in the bag to measure the concentration of any vapors that may have collected in the available head space. The results of the field screening are included in the following table.

FIELD SCREENING RESULTS

LOCATION	DEPTH (feet)	PID READING (ppm)
B/MW-1	0-2	0.0
	2-4	0.5
	4-6	0.8
	6-8	1.4*
	8-10	0.0
	10-12	0.0
B/MW-2	0-2	0.0
	2-4	1.1

LOCATION	DEPTH (feet)	PID READING (ppm)
	4-6	16.9
	6-8	67.7*
	8-10	28.9
	10-12	NF
	12-14	12.0
	15-17	11.8
B/MW-3	0-2	0.0
	2-4	0.0
	4-6	0.0
	6-8	0.0
	8-10	0.0*
	10-12	0.0
B/MW-4	0-2	0.0
	2-4	0.0
	4-6	0.0
	6-8	0.0
	8-10	0.0
	10-12	0.0*
	12-14	0.0
	14-17	0.0

**Sample chosen for laboratory analysis*
NF - insufficient recovery for field screening

The PID readings from the site ranged from 0.0 to 67.7 parts per million (ppm). The highest reading, 67.7 ppm, was recorded for the soil sample collected from 6-8 feet below the ground surface at boring B-2. All PID readings were near the acceptable background range for uncontaminated soils. The elevated PID reading of 67.7 ppm may have been caused by moisture content, representative of the rainy weather encountered during drilling operations. One soil sample from each boring location was submitted for laboratory analysis.

A total of four soil samples were submitted to Connecticut Testing Laboratories in Meriden, Connecticut for chemical analysis. The soil samples were analyzed for VOCs by EPA Method 8240, TPH by EPA Method 418.1, total RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), PCBs and pesticides by EPA Method 8080. The results of the soil analytical testing are discussed in Section 4.1.

2.6 Ground Water Sampling and Analysis

Ground water samples were collected from the four (4) monitoring wells and one (1) supply well on May 20, 1997. The samples were collected according to standard MARIN and DEP sampling protocols. Depth to ground water and the total depth of each monitoring well were measured prior to sampling. This information was used to determine the height of the water column in each well and to ensure that three times the standing water was purged from each well prior to collecting the water sample.

After collection, the ground water samples were stored on ice and submitted to Connecticut Testing Laboratories in Meriden, Connecticut for chemical analysis on May 20, 1997. The water samples were analyzed for VOCs by EPA Method 8240, for TPH by EPA Method 418.1, Total RCRA 8 metals (arsenic, barium cadmium, chromium, lead, mercury, selenium, and silver), PCBs and pesticides by EPA Method 8080. The results of the chemical analyses are discussed in Section 4.2.

2.7 Ground Water Elevation Survey

The monitoring wells were surveyed by a MARIN Environmental Scientist and Field Scientist on May 29, 1997. The survey data is included in Appendix D. The survey data, in conjunction with the depth to ground water at each well, has been used to determine the elevation of the water table across the site, and therefore, the direction of ground water flow. An assumed elevation of 100 feet was assigned to monitoring well location MW-3. All elevation data and ground water data has been calculated based on the assumed reference location. This data is summarized in the following table. The ground water contours are mapped on Figure 3. Because the supply well (SW-1) is suspect to be a bedrock well, it was not included in the overburden ground water contour mapping as shown on Figure 3.

MONITOR WELL	ELEVATION OF PVC* (feet)	DEPTH TO STATIC WATER LEVEL	GROUND WATER ELEVATION

	Top of Protector	5/20/97 Top of Protector (feet)	
MW-1	98.257	10.50	87.757
MW-2	97.844	10.07	87.774
MW-3	100.000	6.54	93.460
MW-4	101.792	16.66	85.132
SW-1	95.502	20.62	74.882

Ground water is expected to flow across the site. Ground water flow appears to flow radially from the center of the site in a westerly, northwest and southwest direction.

3.0 REGULATORY CRITERIA

The clean-up standards pertinent at this site are the DEP Remediation Standard Regulations (RSR), Section 22a-133 of the Regulations of Connecticut State Agencies. Although the site is not an establishment or regulated under the Connecticut Transfer Act, the RSR are the only standards currently in use at DEP. The RSR (finalized January 13, 1996) specify numeric criteria that apply to concentrations of contaminants in soil and ground water. The criteria for contaminants present in soil and ground water that would be applied to this site are discussed below.

Soil

The RSR define two criteria that apply to soil: Direct Exposure Criteria (DEC) and the Pollutant Mobility Criteria (PMC). The DEC defines the level of contaminants allowable for direct human exposure, based on a one in one million cancer risk. The DEC is further divided into numerical criteria for residential and industrial/commercial sites. The residential DEC are more stringent. Remediation to the industrial/commercial DEC is only allowed at industrial/commercial sites, and requires an Environmental Land Use Restriction (ELUR). The ELUR is an amendment to the property deed that documents the presence of contamination and sets restrictions on activities allowed in the area of contamination. The DEC can apply to soil to a depth of fifteen (15) feet below ground surface, but is generally applied to a depth of 4 feet or the water table, whichever is deeper. At this site, it is assumed that the residential DEC would apply.

The PMC for contaminants in soil sets the level of contaminants that are allowed to remain in soil without posing a threat to ground water quality. PMC have been set for both GA and GB ground water classification areas. The PMC for GA areas are more stringent than for GB areas. The PMC applies to soil above the seasonal low or high water table, depending if the area is classified GA or GB. The site is located in an area with a GA ground water classification.

Ground Water

Three criteria have been established in the RSR for contaminants in ground water: the Ground Water Protection Criteria, the Volatilization Criteria, and the Surface Water Protection Criteria. The Ground Water Protection Criteria (GWPC) establishes numerical criteria for allowable limits of compounds in ground water that could be considered a drinking water resource. In areas that are regulated as GA/GAA, the goal may be to achieve the GWPC or even more stringent background conditions, depending on if municipal water is available for all area residents. Compliance with the GWPC is generally not required in GB areas. As previously mentioned, this site is located in a GA area, indicating that background would be the clean-up goal. At this site, background is likely to mean zero contamination.

The Volatilization Criteria (VC) establishes the levels of volatile organic compounds (VOCs) that may be present in shallow ground water less than fifteen feet below ground surface. If levels of VOCs exceed the VC, the potential exists for adverse health effects due to exposure to vapors, especially in buildings. Residential and industrial/commercial VC have been established, with the residential VC being more stringent and the industrial /commercial VC requiring an ELUR. A companion criteria, the Soil Vapor Criteria (SVC), has also been established to aid in evaluating the need for remediation if the VC is exceeded.

If the VC for a compound has been exceeded, but the level of vapor for that compound in the soil above the water table is below the SVC, it may not be necessary to remediate. The VC and SVC apply to both GA and GB areas.

The Surface Water Protection Criteria (SWPC) applies to contaminated ground water that is discharging to a surface water body. One standard has been set for all surface water bodies, regardless of quality classification. The criteria specifies levels of compounds allowable in ground water just prior to discharging into surface water.

Alternative Criteria

The RSR allow for the development of alternative criteria regarding allowable levels of contamination in either soil, ground water, or surface water. If compliance with the specific numeric criteria can not be met, it may be beneficial to explore the feasibility of developing alternative criteria prior to initiating remedial action. However, use of alternative criteria must be approved by the DEP, and demonstrating that use of alternative criteria meets DEP objectives regarding protection of human health and the environment may be time consuming and costly. At this time it is assumed that alternative criteria will not be developed for the Site.

4.0 RESULTS OF SAMPLING AND ANALYSIS

4.1 Soil /Sediment Analysis

Four soil samples were collected during installation of the soil borings/monitoring wells and submitted for analysis of VOCs, TPH, PCBs, Pesticides, and the 8 RCRA metals (by TCLP analysis). The following table summarizes parameters detected in the soil. The laboratory data sheets and chains of custody are included in Appendix B.

Sample Location	Barium (mg/L)	TPH (ppm)
B-1	0.6	28
B-2	0.6	ND<25
B-3	0.6	60
B-4	1.2	ND<25

ND: Non Detect/Below Detectable Limits

Polychlorinated biphenyls (PCBs), pesticides or VOCs were not detected at any soil sampling locations. Detected levels of TPH were below the RSR Pollutant Mobility (PMC) and the Residential Direct Exposure Criteria (RES) of 500 ppm, are likely represent natural conditions in the soil.

Barium detected at B-4 (1.2 mg/L, ppm) exceeded the GA PMC of 1.0 ppm. It is likely that the concentrations of barium detected are background, and not representative of an on-site containment source.

4.2 Ground Water Analysis

Ground water was collected from the four monitoring wells (MW-1, MW-2, MW-3 and MW-4) and the on-site bedrock supply well (SW-1). The samples were submitted to Connecticut Testing Laboratories of Meriden, Connecticut for analysis. The analytical

data has been compared to the numerical criteria for regulated compounds for GA/GAA ground water classification areas established in the Connecticut Department of Environmental Protection (DEP) Remediations Standard Regulations (RSR).

The following table summarizes the detected ground water parameters.

GROUND WATER SAMPLE LOCATION

Parameter	MW-1	MW-2	MW-3	MW-4	SW-1
MTBE (ppb)	2.0	BDL	6.0	5.0	BDL
TPH (ppm)	0.9	0.7	0.6	0.5	ND<0.5
Cadmium (ppm)	ND<0.005	D<0.005	0.006	ND<0.005	ND<0.005
Chromium (total) (ppm)	ND<0.005	ND<0.005	0.05	ND<0.005	ND<0.005
Lead (ppm)	ND<0.010	ND<0.005	0.019	ND<0.010	0.015

ND/BDL: Non detect/below detectable limit
Bold indicates exceedance in GB GWPC

The only VOC detected in any of the samples is methyl-tert-butyl ether (MTBE). MTBE was detected in MW-1, MW-3, and MW-4 at levels of 2.0 ppb, 6.0 ppb, and 5.0 ppb, respectively, all below the GA/GAA Ground Water Protection Criteria (GWPC) of 100 ppb (ug/L) and the residential volatilization criteria of 50,000 ppb (ug/L). There is no surface water protection criteria listed for MTBE.

No PCB's or pesticides were detected in any of the ground water samples.

TPH was detected above the GA GWPC of .5 ppm (mg/L) in samples collected from MW-1, MW-2, MW-3 and MW-4 at levels of 0.9 ppb, 0.7 ppb, 0.6 ppb and 0.5 ppb, respectively. There is no applicable residential volatilization criteria or surface water protection criteria for TPH.

Lead (total) was detected in samples collected from SW-1 and MW-3 at concentrations of 0.015 ppm and 0.019 ppm respectively. Cadmium (total) and chromium

(total) exceeded the GA GWPC of .005 ppm and .05 respectively at MW-3. Total metals analysis was utilized to characterize metals in ground water and allow for evaluation of possible on-site sources of contamination. Based on the low concentrations of cadmium, chromium and lead detected, it is likely that the metals concentrations are normal and would fall below all applicable criterion had the samples been filtered.

4.3 ACBM Sampling

During the completion of the Phase I ESA, Orlando Annulli and Sons, Inc. provided MARIN a copy of an asbestos sampling report conducted by ATC Environmental, Inc. The report indicated that Asbestos containing siding was confirmed on the house structure. These shingles were removed on May 30, 1997 by New England Environmental.

During the site inspection conducted by MARIN, additional suspect Asbestos containing building materials (ACBMs) were observed in the northeast portions of the former Milk Bottling building. These materials, consisting of two trawled on wall surfaces and a brown fibrous freezer insulation. These suspect ACBMs were not noted in the ATC report.

A Connecticut licensed asbestos sampler collected three homogenous representative samples of both the trawled materials and the insulation. The samples were submitted to EMSL Analytical, Inc. of New York, New York, a Connecticut certified laboratory on June 4, 1997 for Polarized Light Microscopy (PLM) analysis.

None of the sampled suspect ACBM materials collected by MARIN were reported positive for asbestos. A copy of the EMSL Analytical report included in Appendix E.

5.0 TANK PULL/SOIL REMEDIATION

Based on the findings of the Phase II ESA, it was apparent that an on-site petroleum product source may be present. On May 30, 1997 a MARIN Environmental Scientist met with Mr. Tim Dahlgren of CES and Mr. Stetynski, the former site owner, to locate potential historic UST locations. Mr. Stetynski located the approximate location of the former 1,000 gallon gasoline UST to the east of ground water monitoring well MW- 3. Mr. Stetynski reported that the 1,000-gallon UST was approximately 10 years old when removed in the early to mid 1980s. Mr. Stetynski also remembered that a 55- gallon UST and pump was once located north of MW-3 along the northern property boundary. Mr. Stetynski reported that the 550 gallon UST was used prior to the installation of the 1,000 gallon UST. Mr. Stetynski did not know if the 550 gallon UST had been removed.

On June 2, 1997, R. L. Pepin Excavating, under the supervision of a MARIN Environmental Scientist, excavated the former 1,000-gallon UST grave and unearthed the 550-gallon UST.

Three 55-gallon drums were found in the former grave of the 1,000 gallon UST. The drums were observed to be in poor condition and partly filled with suspected ground water and residue fluids. The 550-gallon UST was also filled with groundwater. Neither the 55-gallon drums or the 550-gallon UST appeared to contain any free product.

D-TOX environmental contractors of Newington, CT was contacted by MARIN for the pumping and disposal of the fluids. The fluids were manifested and signed by Bill Kuehn of the City of Middletown and transported to United Waste Recovery of Meriden, Connecticut for disposal.

The three 55-gallon drums, once pumped were removed and the floor of the grave sampled (Floor 1). The floor sample was submitted to Connecticut Testing Laboratories in Meriden, Connecticut for chemical analysis for VOCs by EPA method 8020, MTBE, TPH by

EPA Method 418.1 and lead by TCLP and SPLP extraction. There was no sign of any gross contamination in the suspect grave of the former 1,000-gallon UST.

Once the 550-gallon UST was pumped, the tank was removed. Soil beneath the tank contained elevated PID readings, suggesting a release of gasoline. Bill Kuehn of the City of Middletown approved the removal of source contaminant soils in the vicinity of the 55-gallon UST. The CT DEP Spills Department and the Westfield Fire Marshal was contacted regarding the UST failure.

Soils in the vicinity of the former 550-gallon UST were removed and stockpiled on plastic on June 2, 3 and 4, 1997. It is believed that 80-100 tons of soil were excavated. Impacted soils were excavated until PID readings fell below 10 ppm.

Confirmation soil samples were then collected from the excavation walls and floor. These samples were submitted to Connecticut Testing Laboratories in Meriden, Connecticut for chemical analysis on June 4, 1997. The soil samples from both tank grave locations were analyzed for VOCs by EPA Method 8020, MTBE, TPH by EPA Method 418.1 and lead by TCLP and SPLP extraction.

The following table summarizes the detected parameters in both tank and excavation grave areas. Sample locations are depicted on Figure 4.

Former 1,000-Gallon UST/55-Gallon Drum Grave		
Sample Location	TCLP Lead	SPLP Lead
Floor 1	0.060 mg/l	ND<0.010 mg/l

Former 550-Gallon UST Grave			
	SPLP Lead	TCLP Lead	P & M Xylene
Floor 2	ND<0.010 mg/l	0.100 mg/l	BDL
N. Wall	ND<0.010 mg/l	0.040 mg/l	BDL
S. Wall	ND<0.010 mg/l	0.050 mg/l	43.0
E. Wall	ND<0.010 mg/l	0.080 mg/l	BDL
W. Wall	ND<0.010 mg/l	0.050 mg/l	BDL

BDL = Below detectable limits

The concentration of xylene detected in the excavation (south wall sample) falls below the GA PMC of 19.5 ppm (mg/kg) and the Residential DEC of 500 ppm (mg/kg).

Lead was reanalyzed by the SPLP Extraction Method and was reported as NON DETECT <0.010 mg/L.

Therefore, all impacted soils associated with the release of gasoline from the 550-gallon UST have been removed.

6.0 CONCLUSIONS AND RECOMMENDATIONS

Marin Environmental, Inc. (MARIN) has completed a Phase II Environmental Site Assessment, UST removal and soil excavation at the property located at 811 Middle Street in Middletown, Connecticut. Our findings and recommendations are summarized below.

The results of our study indicate that soil and ground water at the site have been impacted by historic gasoline storage on site. The remaining contaminants are limited to TPH and MTBE present at low levels in groundwater. Impacted soils have been excavated in the vicinity of the former 550 gallon UST to levels below the appropriate RSR Regulatory Standards for GA/GAA and residential classified areas. No contamination was detected in the grave of the former 1000 gallon UST and may have been removed during UST removal.

Contaminated soils associated with the 550-gallon UST have been removed. No other contaminant sources are known to exist, but can not be ruled out given the distribution of contaminants and the ground water contours. Low levels of MTBE and TPH in the ground water do not warrant additional active remediation. The focus of future activities at the site should be to monitor both the overburden monitoring wells and the bedrock supply wells on a periodic (annual or semi-annual) basis to document that contaminant levels are decreasing. An additional well point should be constructed downgradient of the former 550-gallon UST location to determine the potential contaminant impact to adjacent properties to the north of the site. Additional studies may also be required if ground water contaminant levels increase, suggesting that a source remains on-site.

If the current monitoring well points and the on-site supply well are within future site development areas and cannot be saved, the well points should be properly abandoned. Well points, if abandoned, may require replacement to continue documentation of on-site water quality.

Finally, the City of Middletown should provide required documentation to the DEP and the Westfield Fire Marshall to comply with UST regulations.

7.0 LIMITATIONS

This report was completed by Marin Environmental, Inc. (MARIN) for the sole use of CES, Inc. and its attorneys and lenders in connection with an assessment of on-site environmental conditions. Use of the report by any other person for any other purpose is not authorized except with the prior written consent of MARIN.

The work was undertaken to assess environmental conditions specifically on the subject property in accordance with generally accepted engineering and hydrogeological practices. No other warranty, expressed or implied, is made. Absolute assurance that any and all possible contamination at the site was identified cannot be provided.

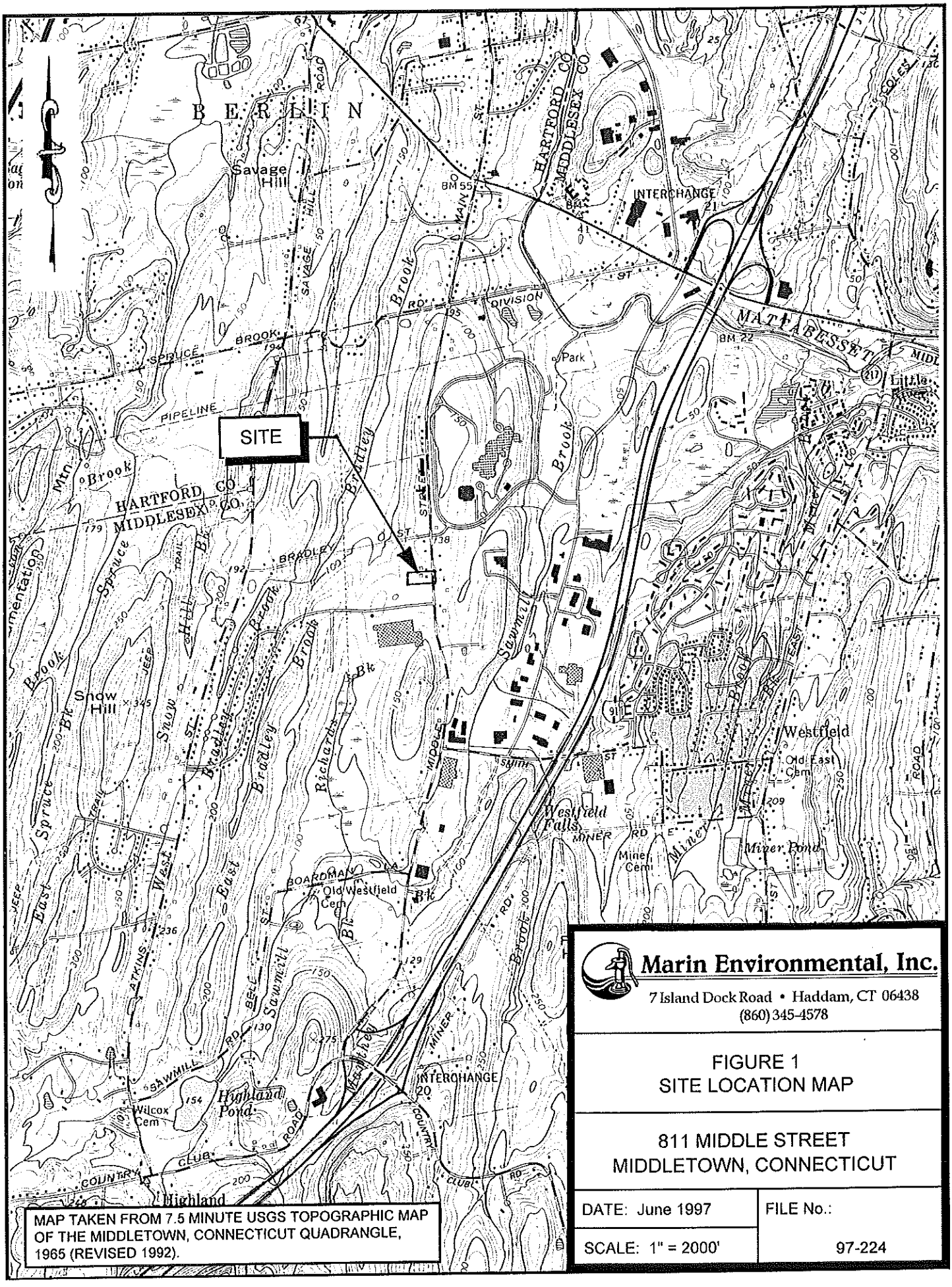
The report conclusions are based, in part, on information provided by the client, their agents, or third parties, including State or local officials. MARIN assumes no responsibility for the accuracy and completeness of this information.

Where visual observations are included in the report, they represent conditions at the time of inspection, and may not be indicative of past or future site conditions.

FIGURES

FIGURE 1

Site Location Map



MAP TAKEN FROM 7.5 MINUTE USGS TOPOGRAPHIC MAP OF THE MIDDLETOWN, CONNECTICUT QUADRANGLE, 1965 (REVISED 1992).

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(860) 345-4578

FIGURE 1
SITE LOCATION MAP

811 MIDDLE STREET
MIDDLETOWN, CONNECTICUT

DATE: June 1997	FILE No.:
SCALE: 1" = 2000'	97-224

FIGURE 2

Site Plan

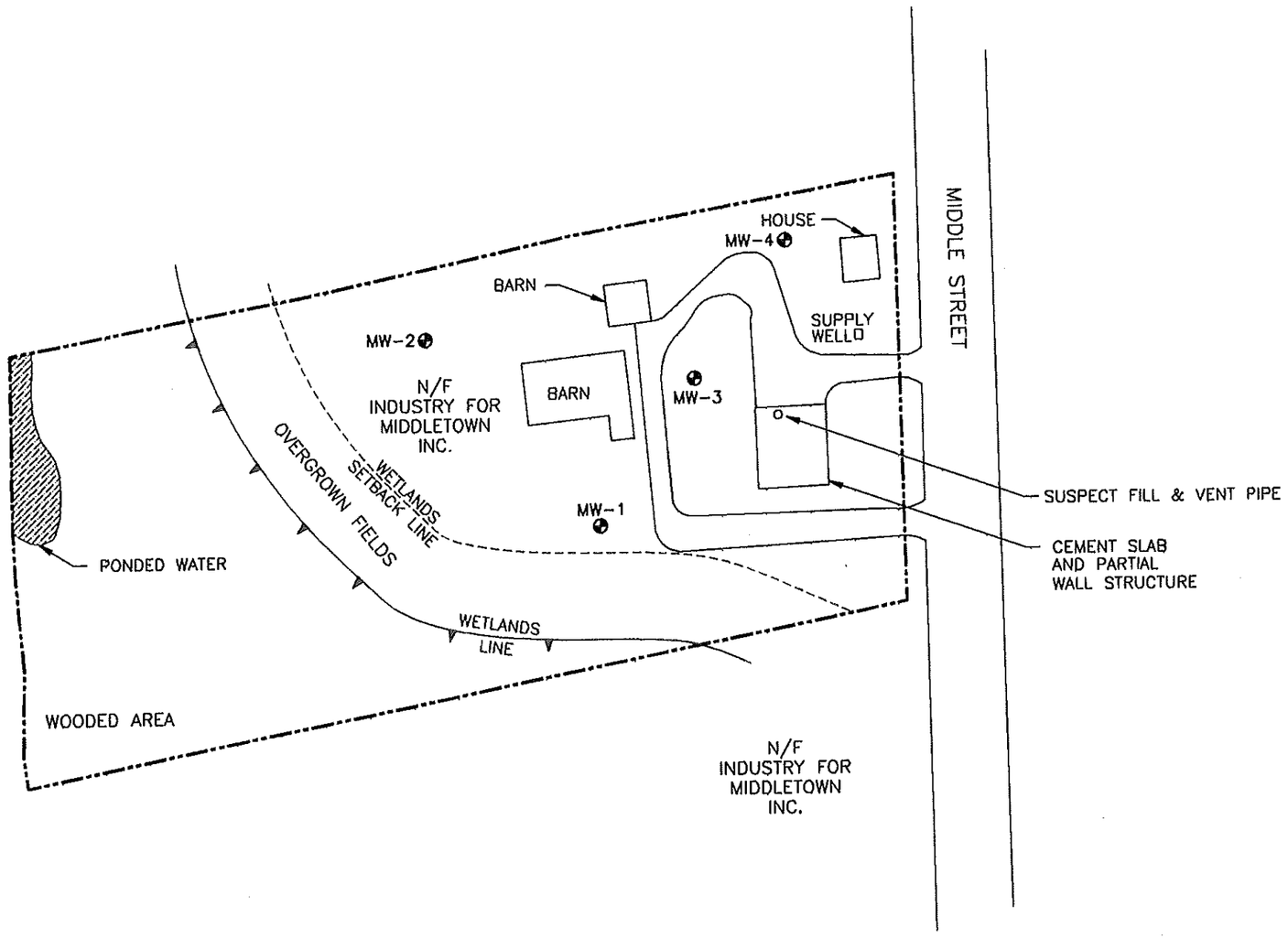

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FIGURE 2
SITE PLAN

811 MIDDLE STREET
MIDDLETOWN, CONNECTICUT

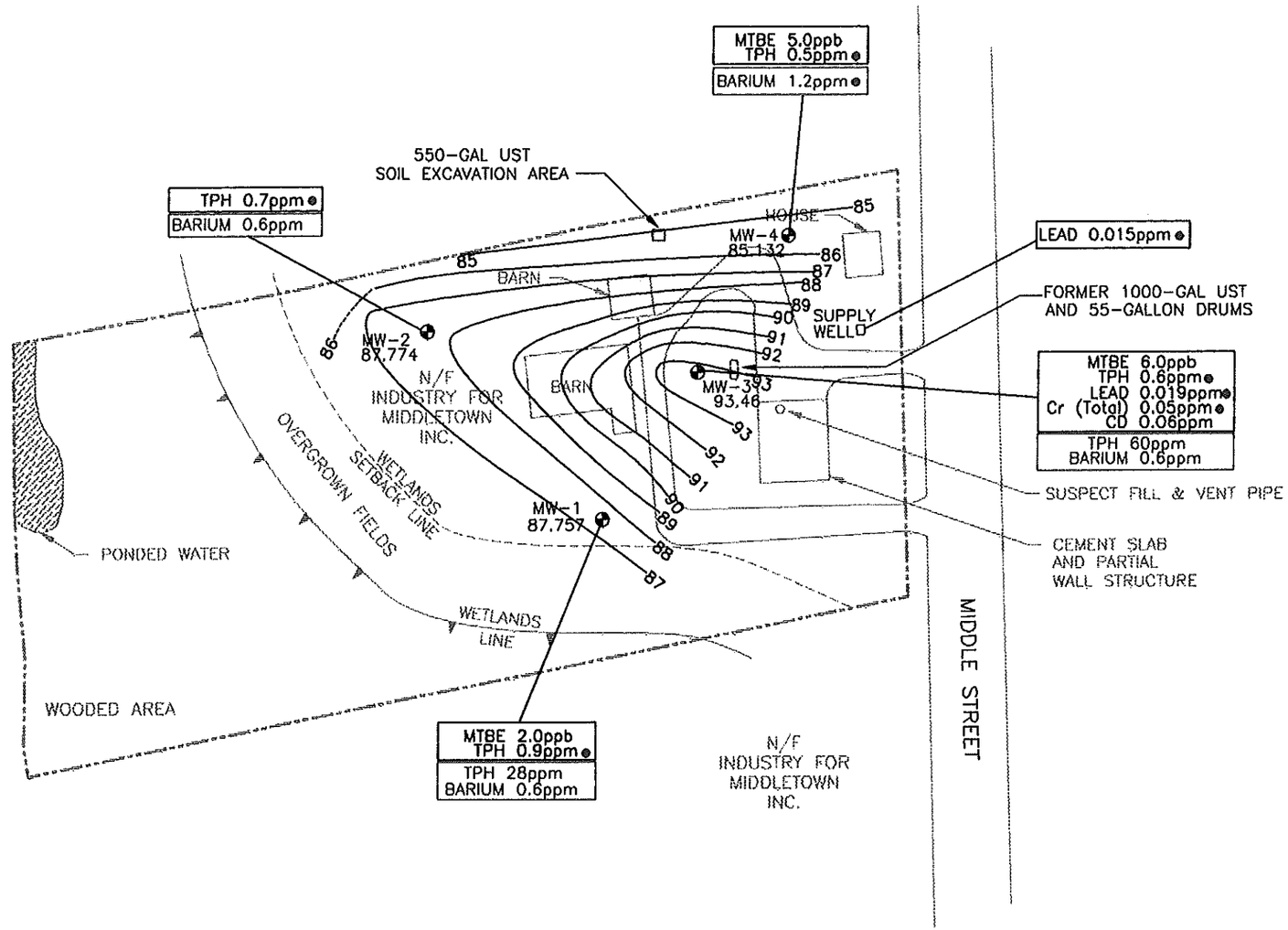
DRAWN BY: PFL	DATE: MAY 1997	SCALE: 1"=80'
APPROVED BY: TM		FILE No.: 97224001

FIGURE 3

Ground Water Contours and Detected Parameters

LEGEND

TPH 60ppm	GROUND WATER SAMPLES
TPH 60ppm	SOIL SAMPLES
●	RSR PARAMETER EXCEEDANCES
	GROUND WATER CONTOUR
85	GROUND WATER ELEVATION
	DIRECTION OF GROUND WATER FLOW



0 80' 160'

SCALE IN FEET
1" = 80'

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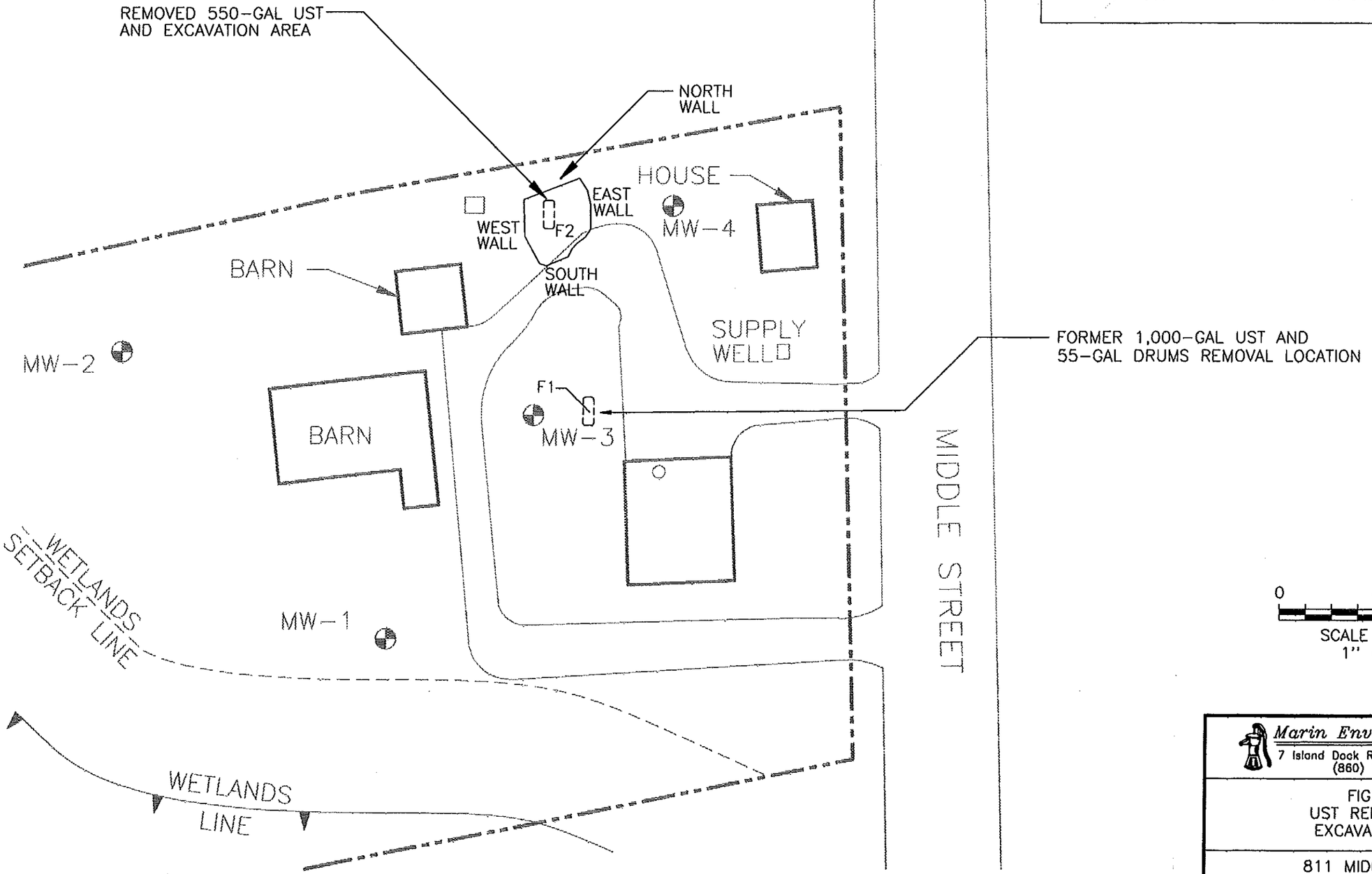
FIGURE 3
GROUND WATER CONTOURS AND
DETECTED PARAMETERS

811 MIDDLE STREET
MIDDLETOWN, CONNECTICUT

DRAWN BY: PFL	DATE: JUNE 1997	SCALE: 1"=80'
APPROVED BY: TM		FILE No.: 97224002

FIGURE 4

UST Removal and Excavation Area



LEGEND

EAST WALL COMPOSITE SOIL SAMPLE LOCATIONS

FORMER 1,000-GAL UST AND 55-GAL DRUMS REMOVAL LOCATION

0 40' 80'

SCALE IN FEET
1'' = 40'

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(860) 345-4578

FIGURE 4
UST REMOVAL AND EXCAVATION AREA

811 MIDDLE STREET
MIDDLETOWN, CONNECTICUT

DRAWN BY: PFL	DATE: JUNE 1997	SCALE: 1"=40'
APPROVED BY: TM		FILE No.: 97224003

APPENDICES

APPENDIX A

Monitoring Well Construction/Boring Logs

Marin Environmental, Inc

BORING LOCATION: To Left of Barn
BORING NO.: B-1
TOTAL DEPTH: 12'

SITE: 811 Middle st
LOCATION: Middletown
DATE: 5/19/97
JOB: 97-204 JOB NO.

DRILLING METHOD: 4 1/4" Auger, CME 45 Bombadier
BORING DIAMETER

AND 33-50%
SOME 20-33%
LITTLE 10-20%
TRACE 0-10%

FIELD SUPERVISOR: John Babick
CONTRACTOR: Glacier
DRILLERS: Terry, O.J.

140lb rope
BLOWS PER 6"
DRILLING ACTION

D	S	SN	0-6	6-12	12-18	18-24	R	SAMPLE DESCRIPTION	GENERAL DESCRIPTION	WELL DETAIL	PID	Background
		sp-1	3	3							0.0	0.0
					5	11	10"	sp-1 → very fine reddish brown sand, some silt, pieces of grass, trace gravel				
		sp-2	11	15							0.5	0.0
					22	25	22"	sp-2 → very fine reddish brown sand, some silt, trace gravel	▽ at 8' at 9:00 am			
5'		sp-3	12	14							5.8	0.0
					28	24	21"	sp-3 → very fine reddish brown sand, some silt, trace clay, trace gravel	6'-8' → hard augering through cobbles	10 slot screen		
		sp-4	27	41							1.4	0.0
					32	46	22"	sp-4 → fine reddish brown sand, little silt, little gravel, trace med coarse sand	sand pack			
		sp-5	40	21							0.0	0.0
10'					19	25	22"	sp-5 → Top 10" of spoon is reddish brown very fine sand, silt, trace gravel; Lower 12" of spoon is fine med coarse reddish brown sand, little gravel, trace silt			10'	
		sp-6	18	24							0.0	0.0
					37	67 for 4"	21"	sp-6 → fine reddish brown sand, little gravel, little silt, trace med coarse sand	12' → auger refusal; 12' → spoon refusal			
15'											15'	
20'											20'	
25'								Sampled sp-4 6'-8'			25'	
30'											30'	
35'											35'	
40'											40'	

MATERIALS USED	SIZE/TYPE	QUANTITY	MATERIALS USED	SIZE/TYPE	QUANTITY
WELL SCREEN	10 slot	10'	GROUT		
SLOT SIZE			BACKFILL		
RISER PIPE	sch PVC	5'	WATER USED		
GRADED SAND	filmsand	6 bags	STEAM CLEANER		
PELLET BENTONITE	med	1/2 bag	WELL PROTECTOR	stick-up	1
GRANULAR BENTONITE				4 brass lock (ours)	

4 exp cap

Marin Environmental, Inc.

BORING LOCATION: Behind Barn
BORING NO.: B-2
TOTAL DEPTH: 17'

SITE: 811 Miller St
LOCATION: Middletown
DATE: 5/19/97
JOB: 97-204 JOB NO.

DRILLING METHOD: 4 1/4 Auger CME 45 Bomb
BORING DIAMETER

140 lb rope
BLOWS PER 6"
DRILLING ACTION

AND 33-50%
SOME 20-33%
LITTLE 10-20%
TRACE 0-10%

FIELD SUPERVISOR: John Rabick
CONTRACTOR: Glacier
DRILLERS: Terry, O.J.

D	S	SN	0-6	6-12	12-18	18-24	R	SAMPLE DESCRIPTION	GENERAL DESCRIPTION	WELL DETAIL	PID	Background
		sp-1	8	2				sp-1 → very fine gr. brown sand, little silt, trace clay, trace gravel, roots in upper 6"	natural fill	8" pvc riser	0.0	0.0
					3	4	18"					
		sp-2	10	13				sp-2 → very fine reddish brown sand, little silt, little gravel, trace clay	▽ at 10' at 11:05 AM		1.1	0.0
					13	18	13"					
5'		sp-3	8	12				sp-3 → fine reddish brown sand, little silt, trace clay, trace gravel	bentonite		5'16.9	0.0
					13	15	22"					
		sp-4	9	17				sp-4 → fine reddish brown sand, trace silt, trace clay, trace gravel	sand pack		67.7	0.0
					11	12	20"					
		sp-5	9	13				sp-5 → fine reddish brown sand, little silt, trace gravel, trace clay.		10' slot screen	28.9	0.0
10'					12	11	22"				10'	
		sp-6	15	13				sp-6 → no recovery			—	—
					12	15	0"					
		sp-7	10	9				sp-7 → fine reddish brown sand, little silt, trace gravel			12.0	0.0
					14	22	21"					
15'											15'	
		sp-8	16	30				sp-8 → dry "Till", reddish brown fine sand, some gravel, little silt, little med coarse sand			11.8	0.0
					29	36	18"					
20'											20'	
25'									sp-4 to Lab, 6'-8'		25'	
30'											30'	
35'											35'	
40'											40'	

MATERIALS USED	SIZE/TYPE	QUANTITY	MATERIALS USED	SIZE/TYPE	QUANTITY
WELL SCREEN	10 slot	10'	GROUT		
SLOT SIZE			BACKFILL		
RISER PIPE	2"	10'	WATER USED		
GRADED SAND	#1	6 bags	STEAM CLEANER		
PELLET BENTONITE	Med	1 bag	WELL PROTECTOR	1 protector + 3 locks (ours)	
GRANULAR BENTONITE				drop cap	

Marin Environmental, Inc.

BORING LOCATION: In front of Barn
BORING NO.: B-3
TOTAL DEPTH: 11.5'
SITE: 851 Middle St.
LOCATION: Middletown
DATE: 5/19/97
JOB: 97-200 JOB NO.

DRILLING METHOD: 4¼" Auger CME 45 Bomb
BORING DIAMETER
140lb rope
BLOWS PER 6"
DRILLING ACTION

AND 35-50%
SOME 20-33%
LITTLE 10-20%
TRACE 0-10%

FIELD SUPERVISOR: John Babick
CONTRACTOR: Glacier
DRILLERS: Terry, O.J.

D	S	SN	0-6	6-12	12-18	18-24	R	SAMPLE DESCRIPTION	GENERAL DESCRIPTION	WELL DETAIL	PID	Background
		sp-1	3	2				sp-1 → Top 6" is fine dark brown sand, some silt, root matter/organic			0.0	0.0
					2	3	14"		▽ at 10' at 3:00 pm			
		sp-2	5	6				lower 8" is fine brown sand, some silt, trace gravel			0.0	0.0
					12	11	23"	sp-2 → reddish brown fine sand,				
5'		sp-3	6	10				trace gravel, little silt			5'0.0	0.0
					12	20	23"	sp-3 → reddish brown fine sand,				
		sp-4	49	123				some silt, trace gravel, trace clay			0.0	0.0
					52	36	7"	sp-4 → reddish brown fine sand,	auger refusal at 7', moves hole forward 5' and sampled from sp-5 & down			
		sp-5	21	15				little med coarse sand, little silt, little gravel			0.0	0.0
10'					25	19	18"	sp-5 → reddish brown fine sand, some silt, little gravel			10'	
		sp-6	9	25				sp-6 → reddish brown, fine sand and gravel, little silt, trace med/coarse sand			0.0	0.0
					91 for 3"		14"					
15'											15'	
20'									Auger refusal at 11.5'		20'	
									spoon refusal at 11'3"			
25'											25'	
									sp-5 to Lab 8'-10'			
30'											30'	
35'											35'	
40'											40'	

MATERIALS USED	SIZE/TYPE	QUANTITY	MATERIALS USED	SIZE/TYPE	QUANTITY
WELL SCREEN	10 slot	10'	GROUT		
SLOT SIZE			BACKFILL		
RISER PIPE	2"	4'	WATER USED		
GRADED SAND	#1	5 bags	STEAM CLEANER		
PELLET BENTONITE	Medium	½ bag	WELL PROTECTOR	1 well protector & lock (ours)	
GRANULAR BENTONITE					

1 PVC cap

Marin Environmental, Inc.

BORING LOCATION: Behind House | BORING NO.: B-4 | TOTAL DEPTH: 17.5

SITE: 811 Middle St
LOCATION: Middletown
DATE: 5/19/97
JOB: 97-204 JOB NO.

DRILLING METHOD: 4 1/4" Auger CME 45 Bmo
BORING DIAMETER

AND 33-50%
SOME 20-33%
LITTLE 10-20%
TRACE 0-10%

FIELD SUPERVISOR: John Babick
CONTRACTOR: Glacier
DRILLERS: Terry, O, J,

140 lb rope
BLOWS PER 6"
DRILLING ACTION

D	S	SN	0-6	6-12	12-18	18-24	R	SAMPLE DESCRIPTION	GENERAL DESCRIPTION	WELL DETAIL	PID (Background)
		sp-1	11	12	5	7	18"	sp-1 → fine brown sand, little silt, little gravel, 2" layer of med coarse lt. brown sand			0.0 (0.0)
		sp-2	9	11	13	24	23"	sp-2 → very fine reddish brown sand, little silt, trace gravel			0.0 (0.0)
5'		sp-3	19	20	12	14	22"	sp-3 → fine reddish brown sand, little gravel, little silt	no water to 17'		5' 0.0 (0.0)
		sp-4	10	13	8	14	24"	sp-4 → very fine reddish brown sand, little silt, trace gravel, trace clay			0.0 (0.0)
		sp-5	15	11	17	25	24"	sp-5 → fine reddish brown sand, little silt, trace gravel, trace clay			0.0 (0.0)
10'		sp-6	11	18	22	26	20"	sp-6 → brown very fine sand, some silt, trace gravel			10' 0.0 (0.0)
		sp-7	21	23	25	30	22"	sp-7 → very fine brown sand, little silt, trace gravel			0.0 (0.0)
15'											15'
		sp-8	18	23	26	48	23"	sp-8 → very fine brownt reddish brown sand, some silt, trace gravel			0.0 (0.0)
20'									17.5' auger refusal → a lot of sandstone pieces kicked up by auger		20'
25'											25'
30'									sp-6 to lab → 10'-12' (suspected level of water table)		30'
35'											35'
40'											40'

MATERIALS USED	SIZE/TYPE	QUANTITY	MATERIALS USED	SIZE/TYPE	QUANTITY
WELL SCREEN	10 slot	10'	GROUT		
SLOT SIZE			BACKFILL		
RISER PIPE	2"	10'	WATER USED		
GRADED SAND	#1 sand	5 bags	STEAM CLEANER		
PELLET BENTONITE	medium	1/2 bag	WELL PROTECTOR	1 well protector	
GRANULAR BENTONITE				1 lock (ours)	

Soil cap

Marin Environmental

WATER SAMPLING REPORT FORM

PAGE 1 OF 1

FIELD TECH. COLLECTING SAMPLES: JD, BZ

DATE: 5-20-93

PROJECT NAME: Middle Rd

PROJECT NO. 97-204

PROJECT LOCATION: Middle Town

GWI PROJECT MANAGER: TW

WEATHER: TEMP. ( ) DRY (✓) RAINING ( ) SUNNY (✓) CLOUDY ( ) SNOWING ( )

WELL DEPTH MEASUREMENT: WATER LEVEL INDICATION (✓) WEIGHTED TAPE ( )
REFERENE POINT: TOP OF CASING (✓) TOP OF PROTECTOR ( )

DEPTH TO WATER: WATER LEVEL INDICATOR (✓) PLUNKER ( )
REFERENCE POINT: TOP OF CASING (✓) TOP OF PROTECTOR ( )

FIELD OBSERVATIONS:

Odors. . . . . _____
Water Discolored. . . . . _____
Sheen on Water. . . . . _____
Surface Spill Evident . . . . _____
Well Silted in . . . . . _____
Well Obstructed . . . . . _____

WELL NUMBER

EQUIPMENT CLEANING METHOD

Organics		Metals	
Detergent	( )	Detergent	( )
Tap Water	( )	HNO3	( )
Distilled	(✓)	Tap Water	( )
Hexane	( )	HC1	( )
Methanol	( )	Type II Water	( )

EQUIPMENT USED:

Interface Probe	( )
Dissolved Oxygen Meter	( )
Photoinization Detector	( )
Other: _____	( )

MATERIALS USED:

		Amt.
Padlocks	( )	( )
Expandable Caps	( )	( )
Disposable Bailers	(✓)	(5)
Plastic Sheeting	( )	
Other: _____	( )	

Notes: _____

APPENDIX B

Laboratory Analytical Results (Soil)

Marin Environmental

Haddam, CT 06438
Tel.: (203) 345-4578 • Fax: (203) 345-3854

5534737

597316

CHAIN OF CUSTODY RECORD

Page 1 of 1

Reports To: Tim Myjak

Invoice To: Accts Payable

Project No: 97-204

P.O. No.:

Project Mgr.: Tim Myjak

Sampler(s): John Babick

Site Location: 811 Middle St., Middletown

Sample Type & Matrix Codes:

1 = 4°C 2 = HCl 3 = H_2SO_4 4 = HNO_3 5 = Other ICE

C = Composite G = Grab

1 = Aqueous 3 = Sludge 5 = Other
2 = Soil 4 = Sediment

Lab Use	Sample I.D.	Date	Time	Matrix	Sample Type	Preservative	Containers: # 40ml. VOA Vials	# of Amber Glass Liters	# of Plastic Liters	# of Glass Soil Jars 4oz	8080 - PCB's + Pesticides	Organics: ☐ 601 ☐ 8010	☐ 602 ☐ 8020 ☐ 502.2	☐ 624 ☐ 8260 ☐ 524.2	☒ MTBE + 8240 ☐ HSL	☐ 625 ☐ 8270	Metals: ☐ Soluble ☐ Total ☐ TCLP ☒ RCRA 8 TCLP Analysis	☐ PP13	TPH 418.1	Other: ☐ TPH by GC ☐ Fingerprint	☐ TPH by IR ☐ Oil/Grease	☐ 610 ☐ 608
	B-1	5/19	AM	2	C	5				2	X				X		X		X			
	B-2	5/19	AM	2	C	5				2	X				X		XX		XX			
	B-3	5/19	PM	2	C	5				2	X				X		XX		XX			
	B-4	5/19	PM	2	C	5				2	X				X		X		X			

Relinquished By	Received By	Date	Time
John Babick	John Duncan	5-20-97	10:10
John Duncan	M. McMahon	5/20/97	4:40

Special Instructions: 5 days

Special Handling
☐ Standard
☐ 7 Business Days
☐ Rush 24 Hours
Date Results Needed: _____

May 29, 1997

Marin Environmental
7 Island Dock Rd.
Haddam, CT 06438

Attn: Mr. Paul Marin

Please find attached laboratory report(s) for the samples submitted on : **May 20, 1997**

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No.	: 597316
PO/JOB No.	: 97-204
INVOICE No.	: 65811
ORDER No.	: 45954
CUSTOMER No.	: 216

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco
Laboratory Director
PH-0547

connecticut testing laboratories inc.
WATER ■ SOIL ■ AIR

STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 5-20-97

Client Name: **Marin Environmental** CTL Lab No. 597316
Report Date: 5-28-97 PO/Job No. 97-204

RESULTS OF ANALYSIS

TCLP EPA 1311

Matrix Type	**S**	**S**	**S**	**S**
CTL Sample No.	**5534**	**5535**	**5536**	**5537**
Field Id	**B-1**	**B-2**	**B-3**	**B-4**
Arsenic-mg/L	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/L	0.6	0.6	0.6	1.2
Cadmium-mg/L	ND<0.005	ND<0.005	ND<0.005	ND<0.005
Chromium, Total-mg/L	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Lead-mg/L	ND<0.010	ND<0.010	ND<0.010	ND<0.010
Mercury-mg/L	ND<0.002	ND<0.002	ND<0.002	ND<0.002
Selenium-mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01

Matrix Type	**S**	**S**	**S**	**S**
CTL Sample No.	**5534**	**5535**	**5536**	**5537**
Field Id	**B-1**	**B-2**	**B-3**	**B-4**
Oil & Grease (TPH)-ppm	28	ND<25	60	ND<25
Total PCBs-ppm	ND<1	ND<1	ND<1	ND<1

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597316	Date Extracted	: 5-27-97
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type		S	S	S	S
CTL Sample No.		5534	5535	5536	5537
Field Id		B-1	B-2	B-3	B-4
	MDL				
Dichlorodifluoromethane	10	BDL	BDL	BDL	BDL
Chloromethane	10	BDL	BDL	BDL	BDL
Vinyl Chloride	10	BDL	BDL	BDL	BDL
Chloroethane	10	BDL	BDL	BDL	BDL
Bromomethane	10	BDL	BDL	BDL	BDL
Trichlorofluoromethane	10	BDL	BDL	BDL	BDL
Acrolein	10	BDL	BDL	BDL	BDL
1,1-Dichloroethylene	10	BDL	BDL	BDL	BDL
Iodomethane	10	BDL	BDL	BDL	BDL
Allyl Chloride	10	BDL	BDL	BDL	BDL
Acrylonitrile	10	BDL	BDL	BDL	BDL
Methylene Chloride	10	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethylene	10	BDL	BDL	BDL	BDL
1,1-Dichloroethane	10	BDL	BDL	BDL	BDL
2-Butanone(MEK)	10	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	10	BDL	BDL	BDL	BDL
Chloroform	10	BDL	BDL	BDL	BDL
Methacrylonitrile	10	BDL	BDL	BDL	BDL
Propionitrile	10	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	10	BDL	BDL	BDL	BDL
Carbontetrachloride	10	BDL	BDL	BDL	BDL
Benzene	10	BDL	BDL	BDL	BDL
1,2-Dichloroethane	10	BDL	BDL	BDL	BDL
Trichloroethylene	10	BDL	BDL	BDL	BDL
1,2-Dichloropropane	10	BDL	BDL	BDL	BDL
Methyl Methacrylate	10	BDL	BDL	BDL	BDL
Bromodichloromethane	10	BDL	BDL	BDL	BDL
Dibromomethane	10	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	10	BDL	BDL	BDL	BDL
4-Methyl-2-pentanone(MIBK)	10	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropylene	10	BDL	BDL	BDL	BDL
Toluene	10	BDL	BDL	BDL	BDL
trans-1,3Dichloropropylene	10	BDL	BDL	BDL	BDL
2-Hexanone(MBK)	10	BDL	BDL	BDL	BDL
Ethyl Methacrylate	10	BDL	BDL	BDL	BDL

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS** = PPB

Matrix Type: W = Water/Aqueous **S** = Soil/Solid **O** = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597316	Date Extracted	: 5-27-97
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type		S	S	S	S
CTL Sample No.		5534	5535	5536	5537
Field Id		B-1	B-2	B-3	B-4
	MDL				
1,1,2-Trichloroethane	10	BDL	BDL	BDL	BDL
Tetrachloroethylene	10	BDL	BDL	BDL	BDL
Dibromochloromethane	10	BDL	BDL	BDL	BDL
1,2-Dibromoethane(EDB)	10	BDL	BDL	BDL	BDL
Chlorobenzene	10	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	10	BDL	BDL	BDL	BDL
Ethylbenzene	10	BDL	BDL	BDL	BDL
P/M Xylenes	10	BDL	BDL	BDL	BDL
O Xylene	10	BDL	BDL	BDL	BDL
Styrene	10	BDL	BDL	BDL	BDL
Bromoform	10	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	10	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	10	BDL	BDL	BDL	BDL
1,4-Dichloro-2-butene	10	BDL	BDL	BDL	BDL
Pentachloroethane	10	BDL	BDL	BDL	BDL
Benzyl Chloride	10	BDL	BDL	BDL	BDL
DBCP	10	BDL	BDL	BDL	BDL
MTBE	2.0	BDL	BDL	BDL	BDL
p-Bromofluorobenzene (SR)	---	85	82	78	82
Toluene-d8 (SR)	---	98	96	94	96

SR = Surrogate Recovery - percent

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS** = PPB

Matrix Type: W = Water/Aqueous **S** = Soil/Solid **O** = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597316	Date Extracted	: 5-27-97
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 608/8080 Date Samples Rec'd : 5/20/97

Matrix Type :		S	S	S	S
CTL SAMPLE # :		5534	5535	5536	5537
Field ID :		B-1	B-2	B-3	B-4
	MDL				
Aldrin	50	BDL	BDL	BDL	BDL
a - BHC	50	BDL	BDL	BDL	BDL
b - BHC	50	BDL	BDL	BDL	BDL
d - BHC	50	BDL	BDL	BDL	BDL
Lindane	50	BDL	BDL	BDL	BDL
Chlordane	50	BDL	BDL	BDL	BDL
4,4' - DDD	50	BDL	BDL	BDL	BDL
4,4' - DDE	50	BDL	BDL	BDL	BDL
4,4' - DDT	50	BDL	BDL	BDL	BDL
Dieldrin	50	BDL	BDL	BDL	BDL
Endosulfan I	100	BDL	BDL	BDL	BDL
Endosulfan II	100	BDL	BDL	BDL	BDL
Endosulfan Sulfate	100	BDL	BDL	BDL	BDL
Endrin	1.0	BDL	BDL	BDL	BDL
Endrin Aldehyde	50	BDL	BDL	BDL	BDL
Heptachlor	50	BDL	BDL	BDL	BDL
Heptachlor Epoxide	50	BDL	BDL	BDL	BDL
Methoxychlor	50	BDL	BDL	BDL	BDL
Toxaphene	50	BDL	BDL	BDL	BDL
PCB - 1016	100	BDL	BDL	BDL	BDL
PCB - 1221	100	BDL	BDL	BDL	BDL
PCB - 1232	100	BDL	BDL	BDL	BDL
PCB - 1242	100	BDL	BDL	BDL	BDL
PCB - 1248	100	BDL	BDL	BDL	BDL
PCB - 1254	100	BDL	BDL	BDL	BDL
PCB - 1260	100	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/**BDL**= Below Detection Level/**UNITS**= PPB

Matrix Type : W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

June 6, 1997

Marin Environmental
7 Island Dock Rd.
Haddam, CT 06438

Attn: Mr. Paul Marin

Please find attached laboratory report(s) for the samples submitted on : **June 4, 1997**

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 697054
PO/JOB No. : 97-224
INVOICE No. : 65948
ORDER No. : 46093
CUSTOMER No.: 216

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco
Laboratory Director
PH-0547

RECEIVED

connecticut testing laboratories inc.
WATER ■ SOIL ■ AIR

STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 6-4-97

Client Name: **Marin Environmental**	CTL Lab. No. 697054
Report Date: 6-6-97	PO/Job No. 97-224

RESULTS OF ANALYSIS

TCLP EPA 1311

Matrix Type: S

Field Id	CTL#	Lead-mg/L			
Floor 1	6259	0.060			
Floor 2	6260	0.100			
N. Wall	6261	0.040			
S. Wall	6262	0.050			
E. Wall	6263	0.080			
W. Wall	6264	0.050			
S. Comp.	6265	0.060			

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Date Samples Received : 6-4-97

Client Name: **Marin Environmental**	CTL Lab. No. 697054
Report Date: 6-6-97	PO/Job No. 97-224

RESULTS OF ANALYSIS

EPA 418.1

Matrix Type: S

Field Id	CTL#	Oil & Grease (TPH)-ppm			
Floor 1	6259	ND<25			
Floor 2	6260	ND<25			
N. Wall	6261	ND<25			
S. Wall	6262	ND<25			
E. Wall	6263	ND<25			
W. Wall	6264	ND<25			
S. Comp.	6265	ND<25			

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Extracted:	6-5-97
Lab No.	: 697054	Date Tested :	6-5-97
PO No.	: 97-224		
Rep. Date	: 6-6-97	Analyst :	RS

EPA METHOD 602/8020 **Date Samples Rec'd:** 6-4-97

	MDL				
Matrix Type :		S	S	S	S
CTL Sample #:		6259	6260	6261	6262
Field ID :		Floor 1	Floor 2	N. Wall	S. Wall
Benzene	25	BDL	BDL	BDL	BDL
Toluene	25	BDL	BDL	BDL	BDL
Chlorobenzene	25	BDL	BDL	BDL	BDL
Ethyl Benzene	25	BDL	BDL	BDL	BDL
P & M Xylene	25	BDL	BDL	BDL	BDL
O- Xylene	25	BDL	BDL	BDL	BDL
1,4-Dichlorobenzene	25	BDL	BDL	BDL	BDL
1,3-Dichlorobenzene	25	BDL	BDL	BDL	BDL
1,2-Dichlorobenzene	25	BDL	BDL	BDL	BDL
MTBE	50	BDL	BDL	BDL	BDL
1,4-Dichlorobutane (SR)	---	101	98	121	113
2Bromo-1-Chloropropane(SR)	---	102	101	127	115

SR = Surrogate Recovery - percent

MDL = Minimum Detectable Level/ **BDL** = Below Detection Level/ **UNITS= PPB**

Matrix Type: W= Water/Aqueous **S**= Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Extracted:	6-5-97
Lab No.	: 697054	Date Tested :	6-5-97
PO No.	: 97-224		
Rep. Date	: 6-6-97	Analyst :	RS

EPA METHOD 602/8020 **Date Samples Rec'd:** 6-4-97

	MDL				
Matrix Type :		**S**	**S**	**S**	
CTL Sample #:		**6262**	**6263**	**6264**	
Field ID :		**E. Wall**	**W. Wall**	**S. Comp.**	
Benzene	25	BDL	BDL	BDL	
Toluene	25	BDL	BDL	BDL	
Chlorobenzene	25	BDL	BDL	BDL	
Ethyl Benzene	25	BDL	BDL	BDL	
P & M Xylene	25	BDL	BDL	43.0	
O- Xylene	25	BDL	BDL	BDL	
1,4-Dichlorobenzene	25	BDL	BDL	BDL	
1,3-Dichlorobenzene	25	BDL	BDL	BDL	
1,2-Dichlorobenzene	25	BDL	BDL	BDL	
MTBE	50	BDL	BDL	BDL	
1,4-Dichlorobutane (SR)	---	114	121	120	
2Bromo-1-Chloropropane(SR)	---	118	124	124	

SR = Surrogate Recovery - percent

MDL = Minimum Detectable Level/ **BDL** = Below Detection Level/ **UNITS= PPB**

Matrix Type: W= Water/Aqueous **S**= Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

June 9, 1997

Marin Environmental
7 Island Dock Rd.
Haddam, CT 06438

Attn: Mr. Paul Marin

Please find attached laboratory report(s) for the samples submitted on : **June 4, 1997**

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 697125
PO/JOB No. : 97-224
INVOICE No. : 65979
ORDER No. : 46125
CUSTOMER No.: 216

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco
Laboratory Director
PH-0547

connecticut testing laboratories inc.
WATER ■ SOIL ■ AIR

STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 6-4-97
Date Reactivated: 6-6-97

Client Name: **Marin Environmental**	CTL Lab. No. 697125
Report Date: 6-9-97	PO/Job No. 97-224

RESULTS OF ANALYSIS

SPLP EPA 1312

Matrix Type: S

Field Id	CTL#	Lead-mg/L			
Floor 1	6259	ND<0.010			
Floor 2	6260	ND<0.010			
N. Wall	6261	ND<0.010			
S. Wall	6262	ND<0.010			
E. Wall	6263	ND<0.010			
W. Wall	6264	ND<0.010			
S. Comp.	6265	ND<0.010			

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

APPENDIX C

Laboratory Analytical Results (Water)

May 29, 1997

Marin Environmental
7 Island Dock Rd.
Haddam, CT 06438

Attn: Mr. Paul Marin

Please find attached laboratory report(s) for the samples submitted on : **May 20, 1997**

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No.	: 597318
PO/JOB No.	: 97-204
INVOICE No.	: 65812
ORDER No.	: 45955
CUSTOMER No.	: 216

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco
Laboratory Director
PH-0547

connecticut testing laboratories inc.
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STEPHEN J. FRANCO
Laboratory Director
PHONE ▪ 203/634-3731
165 GRACEY AVENUE ▪ MERIDEN, CT ▪ 06451

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 608/8080 Date Samples Rec'd : 5/20/97

	MDL				
Matrix Type :		W	W	W	W
CTL SAMPLE # :		5539	5540	5541	5542
Field ID :		MW-1	MW-2	MW-3	MW-4
Aldrin	1	BDL	BDL	BDL	BDL
a - BHC	1	BDL	BDL	BDL	BDL
b - BHC	1	BDL	BDL	BDL	BDL
d - BHC	1	BDL	BDL	BDL	BDL
Lindane	1	BDL	BDL	BDL	BDL
Chlordane	1	BDL	BDL	BDL	BDL
4,4' - DDD	1	BDL	BDL	BDL	BDL
4,4' - DDE	1	BDL	BDL	BDL	BDL
4,4' - DDT	1	BDL	BDL	BDL	BDL
Dieldrin	1	BDL	BDL	BDL	BDL
Endosulfan I	10	BDL	BDL	BDL	BDL
Endosulfan II	10	BDL	BDL	BDL	BDL
Endosulfan Sulfate	10	BDL	BDL	BDL	BDL
Endrin	0.1	BDL	BDL	BDL	BDL
Endrin Aldehyde	1	BDL	BDL	BDL	BDL
Heptachlor	1	BDL	BDL	BDL	BDL
Heptachlor Epoxide	1	BDL	BDL	BDL	BDL
Methoxychlor	1	BDL	BDL	BDL	BDL
Toxaphene	1	BDL	BDL	BDL	BDL
PCB - 1016	1	BDL	BDL	BDL	BDL
PCB - 1221	1	BDL	BDL	BDL	BDL
PCB - 1232	1	BDL	BDL	BDL	BDL
PCB - 1242	1	BDL	BDL	BDL	BDL
PCB - 1248	1	BDL	BDL	BDL	BDL
PCB - 1254	1	BDL	BDL	BDL	BDL
PCB - 1260	1	BDL	BDL	BDL	BDL

MDL= Minimum Detectable Level/**BDL**= Below Detection Level/**UNITS**= PPB

Matrix Type : W= Water/Aqueous S= Soil/Solid O= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 608/8080 **Date Samples Rec'd : 5/20/97**

Matrix Type	**:**		**W**			
CTL SAMPLE #	**:**		**5543**			
Field ID	**:**		**MW-5**			
		MDL				
Aldrin		1	BDL			
a - BHC		1	BDL			
b - BHC		1	BDL			
d - BHC		1	BDL			
Lindane		1	BDL			
Chlordane		1	BDL			
4,4' - DDD		1	BDL			
4,4' - DDE		1	BDL			
4,4' - DDT		1	BDL			
Dieldrin		1	BDL			
Endosulfan I		10	BDL			
Endosulfan II		10	BDL			
Endosulfan Sulfate		10	BDL			
Endrin		0.1	BDL			
Endrin Aldehyde		1	BDL			
Heptachlor		1	BDL			
Heptachlor Epoxide		1	BDL			
Methoxychlor		1	BDL			
Toxaphene		1	BDL			
PCB - 1016		1	BDL			
PCB - 1221		1	BDL			
PCB - 1232		1	BDL			
PCB - 1242		1	BDL			
PCB - 1248		1	BDL			
PCB - 1254		1	BDL			
PCB - 1260		1	BDL			

MDL= Minimum Detectable Level/**BDL**= Below Detection Level/**UNITS**= PPB

Matrix Type : **W**= Water/Aqueous **S**= Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

May 28, 1997

Marin Environmental
7 Island Dock Rd.
Haddam, CT 06438

Attn: Mr. Paul Marin

Please find attached laboratory report(s) for the samples submitted on : **May 20, 1997**

All pertinent information for this analysis is located on the report. Should it be necessary to contact us regarding billing and or the test results, please have the following information readily available :

LAB No. : 597318
PO/JOB No. : 97-204
INVOICE No. : 65773
ORDER No. : 45916
CUSTOMER No.: 216

Please contact us if you have any questions.

Very truly yours,

Stephen J. Franco
Laboratory Director
PH-0547

connecticut testing laboratories inc.
WATER ■ SOIL ■ AIR

STEPHEN J. FRANCO
Laboratory Director
PHONE ■ 203/634-3731
165 GRACEY AVENUE ■ MERIDEN, CT ■ 06451

Date Samples Received : 5/20/97

Client Name: **Marin Environmental** CTL Lab. No. 597318
Report Date: 5/28/97 PO/Job No. 97-204

RESULTS OF ANALYSIS

Total Metals

Matrix Type	**W**	**W**	**W**	**W**
CTL Sample No.	**5539**	**5540**	**5541**	**5542**
Field Id	**MW-1**	**SW-1**	**MW-2**	**MW-3**
Arsenic-mg/L	ND<0.05	ND<0.05	ND<0.05	ND<0.05
Barium-mg/L	ND<0.5	ND<0.5	ND<0.5	ND<0.5
Cadmium-mg/L	ND<0.005	ND<0.005	ND<0.005	0.006
Chromium, Total-mg/L	ND<0.05	ND<0.05	ND<0.05	0.05
Lead-mg/L	ND<0.010	0.015	ND<0.010	0.019
Mercury-mg/L	ND<0.002	ND<0.002	ND<0.002	ND<0.002
Selenium-mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Silver-mg/L	ND<0.01	ND<0.01	ND<0.01	ND<0.01
Oil & Grease (TPH)-mg/L	0.9	ND<0.5	0.7	0.6
Total PCBs-ppb	ND<1	ND<1	ND<1	ND<1

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Date Samples Received : 5/20/97

Client Name: **Marin Environmental**	CTL Lab. No. 597318
Report Date: 5/28/97	PO/Job No. 97-204

RESULTS OF ANALYSIS

Total Metals

Matrix Type	**W**				
CTL Sample No.	**5543**				
Field Id	**MW-4**				
Arsenic-mg/L	ND<0.05				
Barium-mg/L	ND<0.5				
Cadmium-mg/L	ND<0.005				
Chromium, Total-mg/L	ND<0.05				
Lead-mg/L	ND<0.010				
Mercury-mg/L	ND<0.002				
Selenium-mg/L	ND<0.01				
Silver-mg/L	ND<0.01				
Oil & Grease (TPH)-mg/L	0.5				
Total PCBs-ppb	ND<1				

Matrix Types : W = Water/Aqueous
S = Soil/Solid
O = Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type :		W	W	W	W
Field ID :		MW-1	SW-1	MW-2	MW-3
	MDL				
Dichlorodifluoromethane	1	BDL	BDL	BDL	BDL
Chloromethane	1	BDL	BDL	BDL	BDL
Vinyl Chloride	1	BDL	BDL	BDL	BDL
Chloroethane	1	BDL	BDL	BDL	BDL
Bromomethane	1	BDL	BDL	BDL	BDL
Trichlorofluoromethane	1	BDL	BDL	BDL	BDL
Acrolein	1	BDL	BDL	BDL	BDL
1,1-Dichloroethylene	1	BDL	BDL	BDL	BDL
Iodomethane	1	BDL	BDL	BDL	BDL
Allyl Chloride	1	BDL	BDL	BDL	BDL
Acrylonitrile	1	BDL	BDL	BDL	BDL
Methylene Chloride	1	BDL	BDL	BDL	BDL
trans-1,2-Dichloroethylene	1	BDL	BDL	BDL	BDL
1,1-Dichloroethane	1	BDL	BDL	BDL	BDL
2-Butanone(MEK)	1	BDL	BDL	BDL	BDL
cis-1,2-Dichloroethylene	1	BDL	BDL	BDL	BDL
Chloroform	1	BDL	BDL	BDL	BDL
Methacrylonitrile	1	BDL	BDL	BDL	BDL
Propionitrile	1	BDL	BDL	BDL	BDL
1,1,1-Trichloroethane	1	BDL	BDL	BDL	BDL
Carbontetrachloride	1	BDL	BDL	BDL	BDL
Benzene	1	BDL	BDL	BDL	BDL
1,2-Dichloroethane	1	BDL	BDL	BDL	BDL
Trichloroethylene	1	BDL	BDL	BDL	BDL
1,2-Dichloropropane	1	BDL	BDL	BDL	BDL
Methyl Methacrylate	1	BDL	BDL	BDL	BDL
Bromodichloromethane	1	BDL	BDL	BDL	BDL
Dibromomethane	1	BDL	BDL	BDL	BDL
2-Chlorethylvinylether	1	BDL	BDL	BDL	BDL
4-Methyl-2-pentanone(MIBK)	1	BDL	BDL	BDL	BDL
cis-1,3-Dichloropropylene	1	BDL	BDL	BDL	BDL
Toluene	1	BDL	BDL	BDL	BDL
trans-1,3Dichloropropylene	1	BDL	BDL	BDL	BDL
2-Hexanone(MBK)	1	BDL	BDL	BDL	BDL
Ethyl Methacrylate	1	BDL	BDL	BDL	BDL

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS**= PPB

Matrix Type: W= Water/Aqueous S=Soil/Solid O= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type :		W	W	W	W
Field ID :		MW-1	SW-1	MW-2	MW-3
	MDL				
1,1,2-Trichloroethane	1	BDL	BDL	BDL	BDL
Tetrachloroethylene	1	BDL	BDL	BDL	BDL
Dibromochloromethane	1	BDL	BDL	BDL	BDL
1,2-Dibromoethane(EDB)	1	BDL	BDL	BDL	BDL
Chlorobenzene	1	BDL	BDL	BDL	BDL
1,1,1,2-Tetrachloroethane	1	BDL	BDL	BDL	BDL
Ethylbenzene	1	BDL	BDL	BDL	BDL
P/M Xylenes	1	BDL	BDL	BDL	BDL
O Xylene	1	BDL	BDL	BDL	BDL
Styrene	1	BDL	BDL	BDL	BDL
Bromoform	1	BDL	BDL	BDL	BDL
1,1,2,2-Tetrachloroethane	1	BDL	BDL	BDL	BDL
1,2,3-Trichloropropane	1	BDL	BDL	BDL	BDL
1,4-Dichloro-2-butene	1	BDL	BDL	BDL	BDL
Pentachloroethane	1	BDL	BDL	BDL	BDL
Benzyl Chloride	1	BDL	BDL	BDL	BDL
DBCP	1	BDL	BDL	BDL	BDL
MTBE	2	2.0	BDL	BDL	6.0
Toluene-d8 (SR)	---	100	103	100	132
Dibromofluoromethane (SR)	---	85	85	88	114

SR = Surrogate Recovery - percent

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS**= PPB

Matrix Type: W= Water/Aqueous **S**=Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type : **W**

Field ID : **MW-4**

	MDL				
Dichlorodifluoromethane	1	BDL			
Chloromethane	1	BDL			
Vinyl Chloride	1	BDL			
Chloroethane	1	BDL			
Bromomethane	1	BDL			
Trichlorofluoromethane	1	BDL			
Acrolein	1	BDL			
1,1-Dichloroethylene	1	BDL			
Iodomethane	1	BDL			
Allyl Chloride	1	BDL			
Acrylonitrile	1	BDL			
Methylene Chloride	1	BDL			
trans-1,2-Dichloroethylene	1	BDL			
1,1-Dichloroethane	1	BDL			
2-Butanone(MEK)	1	BDL			
cis-1,2-Dichloroethylene	1	BDL			
Chloroform	1	BDL			
Methacrylonitrile	1	BDL			
Propionitrile	1	BDL			
1,1,1-Trichloroethane	1	BDL			
Carbontetrachloride	1	BDL			
Benzene	1	BDL			
1,2-Dichloroethane	1	BDL			
Trichloroethylene	1	BDL			
1,2-Dichloropropane	1	BDL			
Methyl Methacrylate	1	BDL			
Bromodichloromethane	1	BDL			
Dibromomethane	1	BDL			
2-Chlorethylvinylether	1	BDL			
4-Methyl-2-pentanone(MIBK)	1	BDL			
cis-1,3-Dichloropropylene	1	BDL			
Toluene	1	BDL			
trans-1,3Dichloropropylene	1	BDL			
2-Hexanone(MBK)	1	BDL			
Ethyl Methacrylate	1	BDL			

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS**= PPB

Matrix Type: W= Water/Aqueous **S**=Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
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Client	: Marin Environmental	Date Analyzed	: 5-27-97
Lab No.	: 597318		
PO No.	: 97-204	Analyst	: YK
Rep. Date	: 5-28-97		

EPA METHOD 8240 GC/MS **Date Samples Rec'd: 5-20-97**

Matrix Type : **W**

Field ID : **MW-4**

	MDL				
1,1,2-Trichloroethane	1	BDL			
Tetrachloroethylene	1	BDL			
Dibromochloromethane	1	BDL			
1,2-Dibromoethane(EDB)	1	BDL			
Chlorobenzene	1	BDL			
1,1,1,2-Tetrachloroethane	1	BDL			
Ethylbenzene	1	BDL			
P/M Xylenes	1	BDL			
O Xylene	1	BDL			
Styrene	1	BDL			
Bromoform	1	BDL			
1,1,2,2-Tetrachloroethane	1	BDL			
1,2,3-Trichloropropane	1	BDL			
1,4-Dichloro-2-butene	1	BDL			
Pentachloroethane	1	BDL			
Benzyl Chloride	1	BDL			
DBCP	1	BDL			
MTBE	2	5.0			
Toluene-d8 (SR)	---	97			
Dibromofluoromethane (SR)	---	87			

SR = Surrogate Recovery - percent

MDL = Minimum Detectable Level/**BDL** = Below Detection Level/**UNITS**= PPB

Matrix Type: **W**= Water/Aqueous **S**=Soil/Solid **O**= Oil/Hydrocarbons

CONNECTICUT TESTING LABORATORIES, INC.
165 Gracey Avenue / Meriden, CT 06451-2268
(203)-634-3731
Connecticut Certification No. PH-0547

APPENDIX D

Monitoring Well Elevation Survey Data

LOCATION AND ELEVATION SURVEY

Date: 5-29-97 Weather: SUNNY Project Name: 811 MIDDLE ST Project No. 97-224

Instrument Operator: T. MYJAK Rodman: ANDRES Instrument No. SONOKA BM Desc.: WELL PROTECTOR MW-3

Instrument Setup Location	Station I.D.	Backsight (BS)	Height of Instrument (HI)	Foresight (FS)	Station Elevation	Stadia Readings (upper/lower)	Distance	Angle (degrees)	Notes
1	MW-3	3.295	103.295	X	100.000	3.005 / 3.585			
1	MW-4	X	103.295	1.503	101.792	1.167 / 1.842			
1	SW-1	X	103.295	7.793	95.502	7.603 / 7.981			
									TOP OF PROTECTOR CAS.
2	MW-3	3.331	103.331	X	100.000	3.060 / 3.605			
2	MW-1	X	103.331	5.074	98.275	4.806 / 5.343			
3	MW-1	1.741	99.998	X	98.275	1.294 / 2.184			
3	MW-2	X	99.998	2.154	97.844	1.798 / 2.511			
4	MW-3	X	102.257	2.271	99.986	1.778 / 2.763			
4	MW-2	4.413	102.257	X	97.844	4.051 / 4.776			

NOT NEEDED

Initial BM Elevation:	100.000	Measured Sum of Internal Angles:	
Final BM Elevation:	99.986	(#Setups-2) times 180:	
Vertical Closure Error:	0.014	Angular Closure Error:	
(should be <=0.05 ft.)		(should be <3 degrees)	

Note:
All readings in feet unless indicated otherwise.

Ref. I:/lotusd/forms/survey.wk4.Loc.Elev.

APPENDIX E

ACBM Analytical

EMSL Analytical, Inc.

Asbestos

CHAIN OF CUSTODY

EMSL Representative: Stanley Stolz

Your Company Name: MARIN ENVIRONMENTAL EMSL-Bill to: MAREN ENV.

Street: 7 ISLAND DOCK ROAD Street: SAME

Box #: Box #:

City/State: HADDAM / CT Zip 06438 City/State: Zip:

Phone Results to: Name Fax Results to: Name TIM MYJAK

Telephone #: 860-345-4578 Fax Number: 860-345-3854

Project Name/Number: 811 MIDDLE ST Purchase Order #: 97-224 / TIM

MATRIX

- ☐ Air
- ☒ Bulk
- ☐ Wipe
- ☐ Floor Tile
- ☐ Drinking Water
- ☐ Wastewater
- ☐ Soil
- ☐ Dust

TURNAROUND

- ☐ 6-10 Days
- ☐ 5 Days
- ☐ 72 Hours
- ☐ 48 Hours
- ☒ 24 Hour
- ☐ 12 Hour
- ☐ Same Day*
- ☐ 6 Hours

*S.D. - A.M. delivery by Fed. Ex.-Results by Mid-night or earlier

PCM
- ☐ NIOSH 7400
- ☐ OSHA
- ☐ Other:

PLM
- ☒ EPA 600 STOP POSSITIVE
- ☐ NOB
- ☐ Point Count
- ☐ Other:

SEM
- ☐ Qualitative
- ☐ Quantitative

TEM AIR
- ☐ AHERA
- ☐ NIOSH 7402
- ☐ Level I
- ☐ Level II

TEM BULK
- ☐ Drop Mount (Qualitative)
- ☐ Chatfield
- ☐ Chatfield / SEM QC
- ☐ Conventional (Quantitative)
- ☐ EMSL Method
- ☐ NOB
- ☐ NOB / SEM QC
- ☐ Micro Vac - Quantitative
- ☐ Micro Vac - Qualitative

TEM WATER
- ☐ Wastewater
- ☐ Drinking Water EPA 100.2
- ☐ Water - NY Wastewater
- ☐ Water-NY Drinking Water

TEM WIPE
- ☐ Quantitative
- ☐ Qualitative

XRD
- ☐ Asbestos
- ☐ Silica

OTHER
- ☐

Client Sample # (s) 1A, 1B, 1C - 3A, 3B, 3C Total Samples: 9

Relinquished: Tim Myjak Date: 6-4-97 Time: 1 pm

Received: Date: Time:

Received: Date: Time:

NOTE: Please duplicate this form and use additional sheets if necessary.

EMSL Analytical, Inc.

Asbestos

CHAIN OF CUSTODY

Your Company Name: MARIN ENVIRONMENTAL

Project Name/Number: 811 MIDDLE ST **Purchase Order #:** 97-224/TM

SAMPLE NUMBER	LOCATION	VOLUME (If Applicable)
1A	WALL SPACKLE	
1B	↓	
1C	↓	
2A	WALL SPACKLE REFGERATOR	
2B	↓	
2C	↓	
3A	REFGERATOR INSULATION (BROWN)	
3B	↓	
3C	↓	

NOTE: Please duplicate this form and use additional sheets if necessary.

Westmont, NJ Piscataway, N Carle Place, N Manhattan, N Buffalo, NY Ann Arbor, MI San Mateo, C Smyrna, GA Greensboro, N Houston, TX
609-858-4800 908-981-0550 516-997-7251 212-290-0052 716-631-5887 313-668-5810 415-570-5401 404-333-6066 910-297-1487 713-686-3635

EMSL

Attn.: TIM MYJAK
Marin Environmental
7 Island Dock Road
Haddam, CT 06438

Thursday, June 05, 1997

Ref Number: NY973235

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: 811 MIDDLE STREET

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
1A	WALL SPACE	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate
1B	WALL SPACE	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate
1C	WALL SPACE	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate
2A	WALL SPACKLE REFGERATOR	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate
2B	WALL SPACKLE REFGERATOR	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate
2C	WALL SPACKLE REFGERATOR	Grey Non-Fibrous Homogeneous	Crushed		None Detected		None Detected	50%	Quartz 50% Ca Carbonate

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Robert Georgens
Analyst

Approved Signatory

Westmont, NJ 609-858-4800 | Piscataway, N 908-981-0550 | arle Place, N 516-997-7251 | anhattan, N 212-290-0052 | Buffalo, NY 716-631-5687 | Ann Arbor, MI 313-668-6810 | an Mateo, C 415-570-5401 | Smyrna, GA 404-333-6066 | reensboro, N 910-297-1487 | Houston, TX 713-686-3625

Attn.: TIM MYJAK
Marin Environmental
7 Island Dock Road
Haddam, CT 06438

Thursday, June 05, 1997

Ref Number: NY973235

POLARIZED LIGHT MICROSCOPY (PLM)

Performed by EPA 600/R-93/116 Method*

Project: 811 MIDDLE STREET

SAMPLE	LOCATION	APPEARANCE	SAMPLE TREATMENT	ASBESTOS %	ASBESTOS TYPE	NONASBESTOS %	NONASBESTOS FIBROUS	NONASBESTOS %	NONASBESTOS NONFIBROUS
3A	REFGERATOR INSULATION (BROWN)	Brown Fibrous Homogeneous	Teased	None Detected		50%	Synthetic 40% Cellulose	10%	Other
3B	REFGERATOR INSULATION (BROWN)	Brown Fibrous Homogeneous	Teased	None Detected		50%	Synthetic 40% Cellulose	10%	Other
3C	REFGERATOR INSULATION (BROWN)	Brown Fibrous Homogeneous	Teased	None Detected		45%	Cellulose 45% Synthetic	10%	Other

Comments: For all obviously heterogeneous samples easily separated into subsamples, and for layered samples, each component is analyzed separately. Also, "# of Layers" refers to number of separable subsamples.

* NY samples also analyzed by ELAP 198-1 Method

Robert Georgens
Analyst

Approved
Signatory