

Site Investigation Report

US Tsubaki
Bennington, Vermont
AT SMS Site No. Not Applicable

Prepared For:

US Tsubaki
391 East Warquardt Drive
Wheeling, Illinois 60090

February 2004

Prepared For:

Tighe&Bond

TABLE OF CONTENTS

Tighe & Bond

LETTER OF TRANSMITTAL

SECTION 1 INTRODUCTION

SECTION 2 SUBSURFACE EXPLORATIONS AND ANALYSES

2.1	Summary of Phase I Findings.....	2-1
2.2	Soil Borings and Field Screening Results.....	2-2
2.3	Monitoring Well Installation.....	2-3
2.4	Soil Sampling Analytical Results.....	2-4
2.5	Groundwater Sampling & Analysis	2-6
2.6	Sediment and Surficial Soil Sampling.....	2-8
2.7	Site Hydrogeology	2-9
2.8	Site Geology	2-9

SECTION 3 POTENTIAL RECEPTORS

3.1	Drinking Water.....	3-1
3.2	Groundwater.....	3-1
3.3	Soil.....	3-1
3.4	Indoor Air.....	3-1
3.5	Subsurface Utilities.....	3-2
3.6	Surface Water.....	3-2

SECTION 4 CONCLUSIONS & RECOMMENDATIONS

4.1	Conclusions.....	4-1
4.2	Recommendations.....	4-1

TABLE 1 SUMMARY OF FIELD SCREENING RESULTS

TABLE 2 SUMMARY OF SOIL SAMPLING RESULTS

TABLE 3 SUMMARY OF GROUNDWATER SAMPLING RESULTS

APPENDIX A FIGURES

APPENDIX B SOIL BORING/MONITORING WELL CONSTRUCTION LOGS

APPENDIX C SOIL ANALYTICAL LABORATORY REPORTS

APPENDIX D LOW FLOW SAMPLING DATA SHEETS

APPENDIX E GROUNDWATER, SEDIMENT AND SURFICIAL ANALYTICAL LABORATORY REPORTS

APPENDIX F DEC LETTER CITING REGULATORY REQUIREMENTS FOR CLOSURE OF FACILITY

This report summarizes the results of a Phase II site investigation that was conducted at US Tsubaki (the "site") located at 222 Bowen Road in Bennington, Vermont. The location of the site is illustrated on the partial Bennington, VT Quadrangle U.S.G.S Topographic Map which is included as Figure 1 (Appendix A). The investigation included the advancement of several soil borings, the installation of two groundwater monitoring wells and the subsequent collection of soil, groundwater and sediment samples. This report was generated in general accordance with the Work Plan prepared by Tighe & Bond (December 17, 2003) for US Tsubaki.

The site investigation was conducted based on data collected and summarized in Tighe & Bond's *Phase I Environmental Site Assessment (ESA) and Environmental Compliance Audit* (December 2003). The December 2003 report identified recognized environmental conditions (RECs) that could potentially pose a risk to site soils and groundwater. The identified RECs include a release that was reported on an adjacent property located to the south/southeast. The adjacent property (formerly known as the Jard Company) is identified on the Vermont Department of Environmental Conservation (DEC) Active Hazardous Sites List as number 77013. Other RECs identified in the ESA included the types of materials used during the site facility operations that could have potentially been released to the site soils and groundwater through spills. The ESA did not identify any known spills and/or any former USTs on site.

According to the partial U.S.G.S. Topographic map, the site is situated at an elevation of approximately 670 feet above mean sea level with topography in the general area sloping gently to the west/northwest. The site is located on a 5.4 acre parcel of land with a 74,000 square foot single building on-site. The site has been in operation since 1977. Operations at the site generally consist of manufacturing of sprockets. The site facility is currently registered as a small quantity hazardous waste generator with the State of Vermont and the United States Environmental Protection Agency (EPA). Accordingly, closure of the facility must be conducted in accordance with DEC guidance (Section 7-309(c)) as further described in this report. Based on the data from the ESA, no known releases and/or spills of petroleum or other hazardous material have been reported at the site.

The data collected from this Phase II investigation, indicate that elevated levels of petroleum in sediment and benzene in groundwater were detected. One of these compounds, benzene, was detected at a concentration above the DEC Preventive Action Levels (PALs), but below the Enforcement Standard (ES). As such it is recommended that a copy of this report be forwarded to DEC for their review and comment. The details of our findings and recommendations are provided in the following sections.

SECTION 2 SUBSURFACE EXPLORATION AND ANALYSES

Tighe&Bond

2.1 SUMMARY OF PHASE I FINDINGS

The December 2003 Phase I report identified several RECs that could potentially impact the site soils and groundwater. As indicated in the Section 1, an upgradient parcel of land on which a now defunct manufacturing facility existed (Jard Company) is currently identified on the DEC Active Hazardous Sites List as number 77013. The project site is also registered as a small quantity hazardous waste generator.

The Jard Company property is located along Bowen Road in Bennington, Vermont. From 1969 to 1989, Jard Company manufactured capacitors, non-fluid transformers, and motors used in household appliances on the property. Two (2) dry wells located on the property potentially received polychlorinated biphenyls (PCBs)- and bis (2ethylhexyl)phthalate (DOP)-contaminated wastewater.

Historical sampling results have indicated the presence of high concentrations of PCBs, DOP, chlorinated solvents, and inorganics in soils and groundwater throughout the property. The 1992 EPA Removal Action included removing chemicals stored in drums and containers on the property, pumping out dry wells and removing contaminated sediments, cleaning floor drains, removing PCB-contaminated soils, installation of a perimeter fence, and securing the building. The 1999 Removal Action included the removal of PCB-contaminated surficial soil and the repair of the on-site

A total of five (5) monitoring wells are located on the property. Historical groundwater sampling has indicated the presence of dichlorobenzene isomers, DOP, PCBs, 1,2-dichloroethylene isomers, 1,1,1-TCA, TCE, benzene, toluene, chlorobenzene, and ethylbenzene. Groundwater flow direction at the Jard facility was identified to the southeast, away from the Tsubaki parcel.

Historical surficial soil sampling has indicated the presence of DOP, PCBs, di-n-octyl phthalate, dimethylphthalate, butylbenzylphthalate, aldrin, cadmium, calcium, chromium, copper, lead, magnesium, mercury, nickel, silver, and zinc throughout the property. Given the known groundwater flow direction, it is likely that the Jard Company release has impacted both soils and groundwater quality at the U.S. Tsubaki facility.

In addition to the compounds that have been released by the Jard Company, the U.S. Tsubaki facility has used various chemicals at this facility since 1977. Given the volume of oil and hazardous materials in use, the presence of catch basins and former floor drains, the potential exists for a release from the facility that has also impacted soil and groundwater quality at the property.

Based on the findings from the Phase I, soil borings and monitoring well locations were determined.

2.2 SOIL BORINGS AND FIELD SCREENING RESULTS

On January 9, 2004, Tighe & Bond supervised the advancement of 13 soil borings at the site. The soil borings were advanced by Seaboard Drilling of Springfield, Massachusetts, using a hollow stem auger rig. Two of the soil borings were subsequently converted into monitoring wells (MW-1 and MW-2). The remaining soil borings are identified as B-3 through B-13. The locations of the soil borings are shown on Figure 2 (Appendix A) and soil boring logs are provided in Appendix B.

The soil borings were advanced to depths ranging from 2.5 feet below ground surface (bgs) to nine feet bgs. Auger refusal was encountered at all soil boring locations due to the presence of bedrock and/or boulders. Soils in the area were observed to be mostly silt at the surface grading into coarse to fine sands with varying amounts of silt and gravel at depth.

A total of 15 soil samples were collected from each of the 13 borings and screened in the field for the presence of volatile organic compounds (VOCs) using a Photovac 2020 photoionization detector (PID). Prior to screening the soils, the PID was calibrated to an isobutylene standard of 101.0 ppm with a response factor of 1.0. Soil samples were also screened for the presence of total petroleum hydrocarbons (TPH) using a Dexsil PetroFLAG Hydrocarbon Test Kit (Dexsil). Based on the potential hydrocarbons to be found on-site as determined during the Phase I, the Dexsil instrument was set to a response factor of 6. Shown on Table 1 is the soil screening results from the soil samples collected from the 13 soil borings.

TABLE 1 Summary of Field Screening Results US Tsubaki 222 Bowen Road Bennington, Vermont		
Sample Identification (Depth)	Dexsil Result (ppm)	PID Result (ppm)
MW-1 (0-2')	22	1.9
MW-1 (5-7')	10	0.0
MW-2 (0-2')	15	0.0
MW-2 (5-7')	209	0.0
B-3 (0-2')	318	2.1
B-4 (0-2')	---	0.9

TABLE 1 Summary of Field Screening Results US Tsubaki 222 Bowen Road Bennington, Vermont		
Sample Identification (Depth)	Dexsil Result (ppm)	PID Result (ppm)
B-5 (0-2')	---	0.0
B-6 (3')	---	0.0
B-7 (2.5')	---	0.0
B-8 (2.5')	259	3.8
B-9 (2.5')	152	0.2
B-10 (2.5')	198	0.0
B-11 (3.5')	52	0.0
B-12 (4.5')	135	4.2
B-13 (2.5')	106	8.9
Note: ppm = parts per million. --- = TPH field screening was not performed.		

As indicated in Table 1, no elevated levels (> 10 ppm) of VOCs were detected in the soil samples screened in the field. VOC concentrations ranged from 0.0 parts per million (ppm) to 8.9 ppm. The maximum VOC concentrations were observed in boring B-13 at a depth of 2.5 feet bgs, located on the northeast section of the site. TPH was detected in soil samples ranging from 10 ppm to 318 ppm, with the maximum TPH concentration detected in soil boring B-3 (0-2 feet bgs). Soil boring B-3 is located on the southeast section of the site. Although slightly elevated levels of TPH were detected in the soil, there was no visual or olfactory evidence indicating any sign of a release of petroleum constituents.

Based on the data collected from the soil samples screened in the field, four samples were selected for laboratory analysis to confirm the presence or absence of petroleum constituents in site soils. Four soil samples that reported elevated concentrations of TPH and/or VOCs were selected for confirmatory analysis.

2.3 MONITORING WELL INSTALLATION

To evaluate the groundwater quality at the site, two soil borings were converted into monitoring wells. As noted in the work plan (December 17, 2003) submitted to US Tsubaki, Tighe & Bond proposed installing four monitoring wells to more fully assess

the groundwater quality throughout the site. However, for reasons (auger refusal) described in Section 2.1, only two of the borings could be advanced to the groundwater table prior to encountering auger refusal. These monitoring wells are located on the northwest and southwest sides of the site. The monitoring wells (MW-1 and MW-2) were installed at depths of 7.5 feet and 8.5 feet, respectively.

The construction of the two monitoring wells was completed using two-inch diameter polyvinyl chloride (PVC) well materials. The annulus of each well was filled with clean sand to approximately one foot above the top of the well screen. Bentonite seals were placed above the sand packs, and a steel stick-up casing and a flush-mounted road box were installed at the ground surface of each monitoring well. The wells were developed by hand bailing prior to departure from the site. Well development water was discharged to the ground surface. The well construction logs are provided in Appendix B.

2.4 SOIL SAMPLING ANALYTICAL RESULTS

As indicated in Section 2.1, four soil samples were submitted for laboratory analysis to confirm for the presence/absence of petroleum constituents. The soil samples (MW-2 (5-7'), B-3 (0-2'), B-8 (2.5') and B-13 (2.5')) were submitted on ice to Severn Trent Laboratories (STL) of Westfield, Massachusetts and analyzed for VOCs by EPA Method 8260 and TPH by EPA Method 8015M (diesel range organics only or DRO). A summary of all compounds detected in the soil samples as well as the corresponding concentration data is presented in Table 2. The STL laboratory reports for the soil analytical results are provided in Appendix C.

Table 2 Summary of Soil Analytical Results US Tsubaki 222 Bowen Road, Bennington, VT						
Sample ID:	MW-2	B-3	B-8	B-13	NH Method 1	
Sample Depth (ft):	5 to 7	0 to 2	2.5	2	Soil Standards	
Sampling Date:	1/9/04	1/9/04	1/9/04	1/9/04	S-1 (mg/kg)	S-2 (mg/kg)
EPA Method 8260B (mg/kg)						
Acetone	0.22	ND>0.049	ND>0.051	ND>0.15	9	9
2-Butanone (MEK)	0.052	ND>0.019	ND>0.02	ND>0.06	2	2
PETROFLAG	209	318	259	106		
EPA Method 8015M (mg/kg)						
Diesel Range Organics	33	42	31	29	10,000	10,000
Notes: (1) The NHDES Method 1 Soil Standards, as described in the <i>Contaminated Risk Characterization and Management Policy</i> (January 1998) consider both the potential risk of harm resulting from direct exposure to the contaminants in the soil and the potential impacts on groundwater. The category of soil (S-1, S-2 and S-3) at each exposure point determines which Method 1 Soil Standard is applicable. The results were compared to the two most stringent categories. (2) mg/kg = milligrams per kilogram (3) ND>0.02 = Not detected above the laboratory quantitation limit shown (4) Only compounds in one or more samples shown above.						

Since the DEC has not adopted any formal compound-specific soil standards other published soil standards are used for reference. Specifically, the concentration of petroleum compounds detected in soil samples at the site were compared to the New Hampshire Department of Environmental Services (DES) Method 1 Risk Characterization Soil Standards as identified in DES' *Contaminated Sites* (RCMP) dated January 1998.

The Risk Characterization and Management Policy soil standards consider both the potential risk of harm resulting from direct exposure to petroleum compounds in the soil and the potential impacts due to leaching to off-site groundwater receptors. There are three different categories listed in Table 2 for the DES Method 1 Soil Standards: S-1, S-2 and S-3. The criteria for determining which of the three categories are applicable to a site depend on the potential for exposure to human and environmental

receptors. S-1 soil standards are the most stringent and would apply to sites where the risk of impacting any human and environmental receptors is high. S-2 and S-3 soil standards are typically less stringent and apply to sites with less risk.

As Table 2 indicates, VOCs were detected in soil sample MW-2 (5-7'). Acetone and 2-Butanone (MEK) were detected at concentrations of 0.22 milligrams per kilogram (mg/kg) and 0.052 mg/kg, respectively. The reported concentrations are significantly below their respective Method 1 Soil Standards of 9 mg/kg and 2 mg/kg. No VOCs were detected in the other three soil samples above the laboratory reporting limits.

STL laboratory reports indicated that low levels of TPH DRO were detected in all four soil samples at concentrations ranging from 29 mg/kg to 42 mg/kg. The reported concentrations are significantly below the DES Method 1 Soil Standards (10,000 mg/kg). Although the DEC has not adopted any compound-specific soil standards, they often use an informal standard of 1,000 mg/kg for TPH concentrations. TPH reported at concentrations exceeding 1,000 mg/kg may result in a request for additional site information relating to the potential risk posed by the release to sensitive environmental receptors. As indicated above, TPH concentrations in all four samples are also significantly below the DEC informal standard.

2.5 GROUNDWATER SAMPLING & ANALYSIS

On January 21, 2004, Tighe & Bond returned to the site to sample the two groundwater monitoring wells. Low flow sampling and purging were performed at each location in general accordance with current EPA protocols. Purging and sampling were performed using a peristaltic pump with Teflon-lined tubing. The pump intake depths were selected to coincide with the center of each saturated screen elevation. Copies of the field data sheets for sampling are provided in Appendix D.

The purged volumes were determined based on the stabilization of field-measured water quality parameters, including: dissolved oxygen (DO), specific conductance, temperature, pH, turbidity and oxidation/reduction potential (ORP). Field parameters were generally measured at five-minute intervals; purging rates and water levels were measured simultaneously. Purged water was discharge to the ground surface. Samples were collected upon stabilization of the field parameters within acceptable limits for three consecutive readings. Acceptable limits are:

- DO & turbidity = within 10% (greater than 1 NTU)
- Specific conductance & temperature = within 3%
- pH = 0.1 pH unit
- ORP (eH) = 10 millivolts (mV)

Following collection, the groundwater samples were submitted on ice to STL for analysis of VOCs by EPA Method 8260, TPH (DRO only) via EPA Method 8015 and polychlorinated biphenyl's (PCBs) via EPA Method 8082 (MW-2, only). Again, these parameters were selected based on the information collected during the Phase I investigation. A summary of all compounds detected in the groundwater samples, along with the corresponding DEC Enforcement Standards (ESs) and Preventive Action Levels (PALs), is presented in Table 3. A complete laboratory report for the January 21, 2004, sampling event is presented in Appendix E.

Table 3				
Summary of Groundwater Analytical Results				
US Tsubaki, 222 Bowen Road, Bennington, Vermont				
Sample ID:	MW-1	MW-2	VT Groundwater Quality Standards	
VOCs (µg/L)			ES(µg/l) ¹	PAL (µg/l) ¹
Benzene	ND>1.0	0.6 J²	5.0	0.5
	No other VOCs detected above laboratory reporting limits.			
PCBs (µg/L)				
	No PCBs were detected above laboratory reporting limits. ³		0.5 ⁴	0.25
TPH (mg/L)				
Diesel Range Organics	ND>0.10 ⁵	0.19	NSE ⁶	NSE
Notes:				
(1) ES = Enforcement Standards, PAL = Preventive Action Levels, ug/l = micrograms per liter or parts per billion.				
(2) J = Indicates an estimated result value (3) Only monitoring well MW-2 was sampled for PCBs.				
(4) All laboratory reporting limits for VOCs and PCBs were below their respective ESs.				
(5) ND>0.10 = Not detected above the laboratory reporting limit shown. (6) NSE = No Standard Established.				
(7) Only compounds detected in one or more samples shown above. Bold indicates an exceedence of PALs.				

As shown on Table 3, benzene was the only VOC detected above the laboratory detection limits. Benzene was detected in groundwater at MW-2 and reported at an estimated concentration of 0.6 micrograms per liter (µg/L). The reported estimated concentration slightly exceeds the benzene PAL of 0.5 µg/L, but is significantly below the benzene ES of 5.0 µg/L. No other VOCs were detected above the laboratory reporting limits in the groundwater from either monitoring well. PCBs were analyzed in monitoring well MW-2 only. As indicated on Table 3, no PCBs were detected above the laboratory detection limits.

Low levels of TPH were detected in groundwater at monitoring well MW-2 at a concentration of 0.19 milligrams per liter (mg/L). TPH was not detected in MW-1. Since DEC or DES have not established a groundwater standard for TPH, the reported TPH concentration was compared to the Massachusetts Contingency Plan (MCP) Method 1 Groundwater Standards (310 CMR 40.0974) for TPH. The MCP has three separate categories for Method 1 Groundwater Standards (GW-1, GW-2 and GW-3). In general, the criteria for determining which of the three categories is applicable to a site depends on the classification and area where the groundwater is located. If the site groundwater is located within a drinking water source area or a potential drinking water source area, the standards are more stringent, i.e. GW-1.

The TPH (for C₉ and greater petroleum hydrocarbons, not gasoline range hydrocarbons) GW-1, GW-2 and GW-3 standards are 0.20 mg/L, 1.0 mg/L and 20 mg/L, respectively. The concentration of TPH reported in MW-2 (0.19 mg/L) is below all three MCP Method 1 standards.

2.6 SEDIMENT AND SURFICIAL SOIL SAMPLING

As part of the site investigation, Tighe & Bond collected two sediment samples from the unnamed stream that is located adjacent to the property. A composite surficial soil sample was also collected from perimeter of a transformer located on the northwest side of the building. Although there is another transformer located on the south side of the facility, no composite sample was collected at this transformer location because it is mounted on a concrete pad on a paved surface.

As indicated on the site plan, the unnamed stream flows through a culvert on the north side of the site building and discharges at an outfall located in the northwest corner of the site building. The headwaters of the brook are located upgradient of the site. Also, according to the Phase I report, floor drains were once located inside the site building that have since been sealed and may have formerly discharged into the brook. Based on the presence of the former floor drains and the presence of the unnamed stream whose headwaters are located upgradient of the site, two sediment samples (SED-1 and SED-2) were collected to assess the conditions of sediment in the stream. The two samples were analyzed for TPH DRO. Sample locations are identified on Figure 2.

Low levels of TPH were detected in SED-1 and SED-2 at concentrations of 12.8 mg/kg and 127 mg/kg, respectively. SED-1 was collected upstream and SED-2 was collected downstream. Although DEC has not adopted any standards for TPH in sediment, the reported levels of TPH were compared to DEC's informal TPH soil standard of 1,000 mg/kg for industrial settings and 200 mg/kg for residential settings. The detected concentrations of TPH in both sediment samples were significantly below both informal standards.

The composite soil sample was collected at the transformer identified as T-1 on the site plan. The transformer is located on the northwest side of the site building. Surficial soil was collected along all four sides of the transformer and one composite sample (identified as Trans-1) was generated from the soil. As indicated previously, the sample was submitted for TPH DRO. TPH was reported at a concentration of 95.4 mg/kg. The reported concentration of TPH in surficial soil sample Trans-1 is significantly below the DEC informal industrial TPH soil standard of 1,000 mg/kg.

2.7 SITE HYDROGEOLOGY

Based on the limited number of monitoring wells installed at the site, a groundwater contour map could not be generated during this site investigation. However, based on the partial Bennington, VT Quadrangle U.S.G.S Topographic Map (included as Figure 1), site groundwater is assumed to flow in a north to northwest direction toward the unnamed stream. Depth to groundwater in monitoring wells MW-1 and MW-2 was recorded at 5.50 feet bgs and 6.03 feet bgs, respectively.

2.8 SITE GEOLOGY

A review of the *Surficial Geologic Map of Vermont* (Doll, 1970), indicated that the site's surficial material consists of glaciofluvial outwash that is horizontally bedded and may or may not have a thin veneer of postglacial alluvium.

As part of this investigation, potential receptors in the site vicinity were further evaluated and the degree of risk posed by contamination to those receptors was assessed. The potential receptors included drinking water, groundwater, soil, indoor air and subsurface utilities.

3.1 DRINKING WATER

According to the ESA, the nearest drinking water supply well is located 660 feet northeast of the site. Approximately 1,083 people receive drinking water from private wells located within four miles of the facility. A regularly used backup municipal spring is located 0.7 miles southeast of the site. Based on the location and distances of the drinking water supply wells and municipal spring from the site and the minor impacts to site groundwater, there appears to be no significant risk posed to drinking water.

3.2 GROUNDWATER

Only one compound was detected at a concentration above the DEC PALs, and no compounds were detected in groundwater at concentrations exceeding the DEC ESs. Benzene was reported in monitoring well MW-2 at a concentration of 0.6 µg/L, slightly exceeding its respective PAL of 0.5 µg/L.

3.3 SOIL

The soil analytical laboratory reports detected the presence of TPH and two VOCs (Acetone and MEK) in subsurface soils at the site. However, the reported concentrations of TPH and VOCs that were detected are significantly below the published soil standards against which they were compared. Based on this data, soils at the site do not appear to pose a risk to groundwater quality at the site.

3.4 INDOOR AIR

Indoor air was not screened during anytime of this limited site investigation. However, based on the fact that the interior of the site building consists of impervious concrete flooring and soil and groundwater samples did not report the presence of any volatile petroleum constituents in exceedences of published standards, it is unlikely that there is any risk posed to indoor quality from the constituents detected in the subsurface during this investigation.

3.5 SUBSURFACE UTILITIES

Underground utilities at the site are limited to municipal water and sanitary sewer systems. The approximate locations of these utilities are illustrated on Figure 2. Interviews with public works department personnel verified the location of both utilities. Based on the absence of VOCs and TPH detected in the site soils, no risk is posed to any subsurface utilities.

3.6 SURFACE WATER

The unnamed stream abutting the property is most likely a tributary of the Walloomsac River. The bank of the unnamed stream was inspected for signs of petroleum seepage and/or any signs of significant staining during this limited site investigation. No visible signs of any petroleum seepage and/or staining were observed during the inspection of the bank. However, due to the presence of TPH detected in sediment samples collected from the unnamed stream, a potential risk to the surface water may exist.

SECTION 4 CONCLUSIONS & RECOMMENDATIONS Tighe&Bond

Conclusions and recommendations presented in this report are based solely on information obtained during the course of this investigation. Changes in site conditions, or information not available for review at the time of this investigation, may necessitate an update of these conclusions and recommendations.

4.1 CONCLUSIONS

Based on the results of this investigation, Tighe and Bond presents the following conclusions:

- Petroleum constituents have been detected in the site soils at US Tsubaki. Laboratory reports confirmed the presence of TPH and VOCs. However, the reported concentrations of TPH in all four soil samples submitted for analysis were well below the DEC informal industrial standard of 1,000 mg/kg. Two VOCs were detected in soil sample MW-2 (5-7') and were reported at concentrations significantly below the NHDES Method 1, S-1 Soil Standards. Based on the reported concentrations of petroleum constituents in the laboratory reports and the field screening results, site soils do not appear to pose a risk to site groundwater.
- Benzene was detected in the groundwater at the site. It was reported in monitoring well MW-2 at a concentration of 0.6 µg/L, slightly exceeding the benzene PAL.
- TPH was detected in sediments collected from the unnamed stream located adjacent to the property. The maximum TPH concentration was detected in SED-2, collected downstream from the site. Since the maximum TPH concentrations were detected in the downstream sediment sample, the potential source could be related to site facility operations.
- Based on the presence of TPH collected from a sample downstream of the site facility, a potential risk to the surface water may exist. Although there were no published standards found for TPH detected in sediments, the TPH concentrations detected were significantly below the DEC's informal soil TPH residential and industrial standards. In addition, when the sediment sample was collected, no sheen was observed on the surface water.
- The risk posed to drinking water, indoor air and subsurface utilities from the petroleum constituents detected in the site soils and groundwater is negligible.

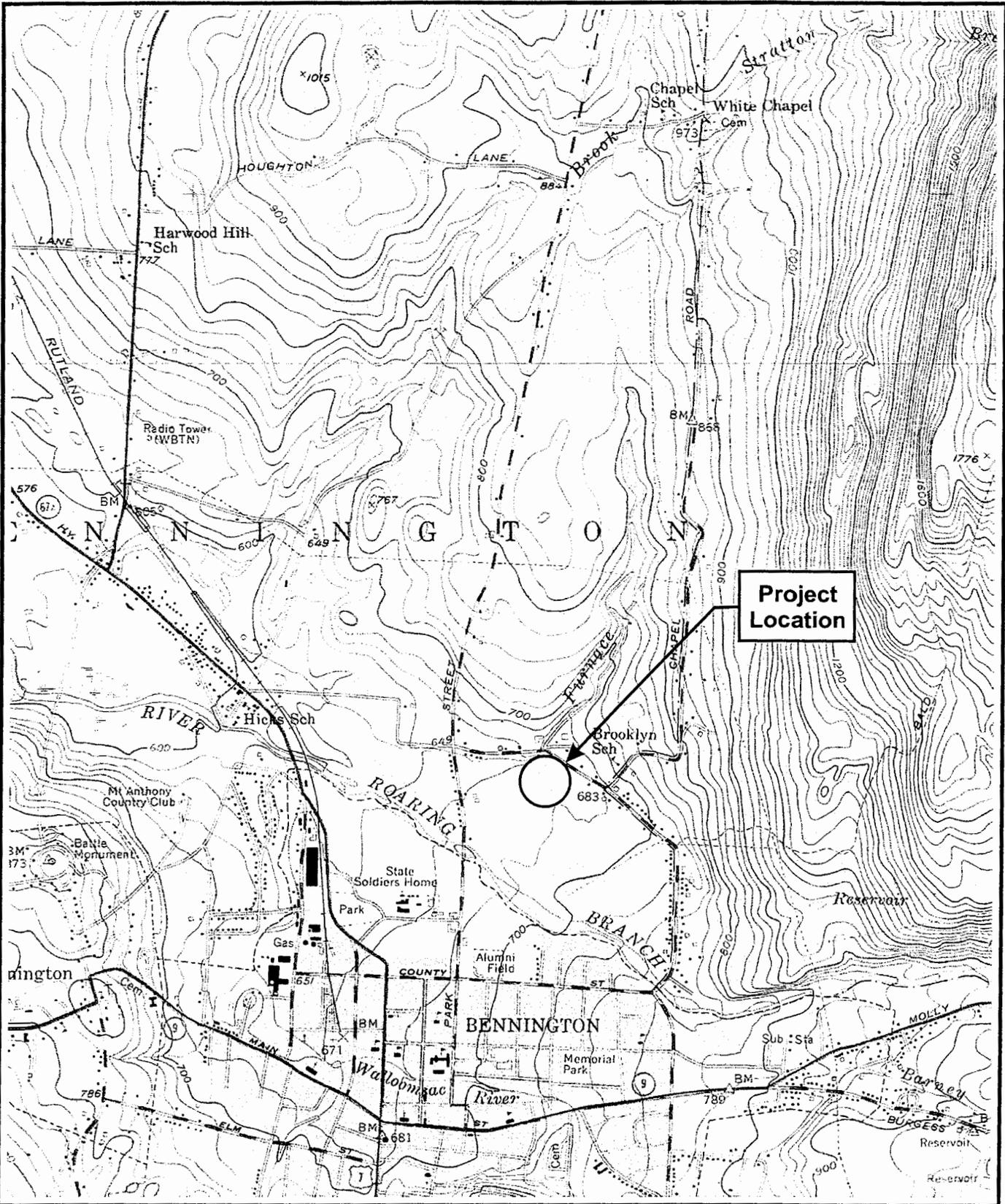
4.2 RECOMMENDATIONS

Based on the above conclusions and in general accordance with current DEC guidelines, Tighe & Bond recommends the following:

- A copy of this report should be forwarded to DEC based on the presence of benzene detected in site groundwater at a concentration exceeding the DEC PAL for benzene. However, based on the location and zoning (commercial/industrial) of the project site and its distances from drinking water supply sources, the presence of benzene at its reported concentration does not appear to warrant any further investigation. In addition, no further investigation is recommended based on the data collected during this site investigation.
- Since US Tsubaki has indicated that they will be closing the facility on Bowen Road and since US Tsubaki is classified as a small hazardous waste generator, the facility should be closed in accordance with Section 7-309(c) of the Vermont Hazardous Waste Management Regulations. A copy of the DEC Agency of Natural Resources letter is provided in Appendix F. The letter includes the regulatory citation for appropriate site closure. In general, the regulation requires the removal and proposed disposal of all wastes in the building prior to Tsubaki evacuating the site.

Due to uncertainties inherent in any scientific investigation of this nature, DEC may have a different interpretation of the impacts and risks associated with the petroleum constituents and their respective concentrations detected at this facility. Consequently, we recommend that you seek DEC approval before you implement any of the recommended activities.

F:\Projects\b\B360\Report\site investigation text.doc



Based upon USGS topographic map for
Bennington, VT Quadrangle
Published 1954
Contour Interval 20 feet



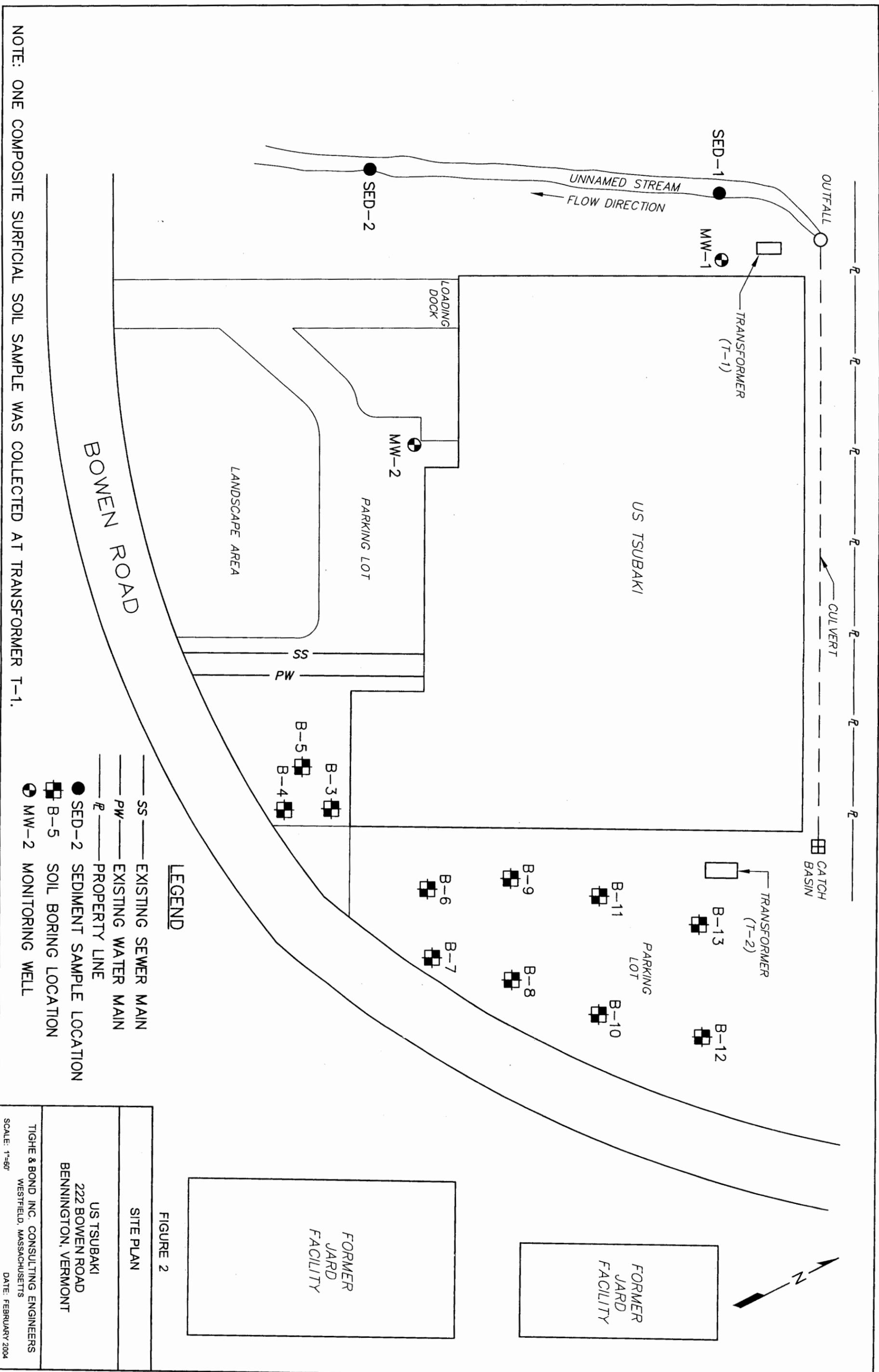
FIGURE 1
SITE LOCATION

US TSUBAKI
222 BOWEN ROAD
BENNINGTON, VERMONT

Tighe&Bond

SCALE: 1:24000

JANUARY 2004



NOTE: ONE COMPOSITE SURFICIAL SOIL SAMPLE WAS COLLECTED AT TRANSFORMER T-1.

LEGEND

- SS — EXISTING SEWER MAIN
- PW — EXISTING WATER MAIN
- PROPERTY LINE
- SED-2 SEDIMENT SAMPLE LOCATION
- B-5 SOIL BORING LOCATION
- ⊕ MW-2 MONITORING WELL

FIGURE 2

SITE PLAN

US TSUBAKI
222 BOWEN ROAD
BENNINGTON, VERMONT

TIGHE & BOND INC. CONSULTING ENGINEERS
WESTFIELD, MASSACHUSETTS
SCALE: 1"=60'
DATE: FEBRUARY 2004

TEST BORING / WELL CONSTRUCTION LOG

Tighe & Bond Consulting Engineers, Bellows Falls, Vermont

Project: <i>US Tsubaki</i>
Client: <i>US Tsubaki</i>
Purpose: <i>Site Investigation</i>
Drilling Contractor: <i>Seaboard</i>
Driller: <i>Jeff N.</i>

Job Number: <i>B-360</i>	Well ID: <i>MW-1</i>
Date Started: <i>1/09/04</i>	Finished: <i>1/09/04</i>
T&B Inspector: <i>TRR</i>	
Rig Type: <i>Auger</i>	
Groundwater depth at completion: <i>~6'</i>	

	Type & Quantity
Sand	<i>#2 Sand (~ 1/2 bag)</i>
Bentonite	<i>Hydrated chips - ~1 bag</i>
Cement	<i>~1 bag</i>
Casing/Cap	<i>Steel Stand Pipe</i>

	Casing	Sample	Core	Well
Type		SS	-	PVC
Diameter		2"	-	2"
Weight	-	140 lbs.	-	-
Fall	-	30"	-	-

Depth Ft.	Blows per 6"	Samp No.	Recov (ft.)	PID (ppm)	Sample Description	General Stratigraphy	Well Construction
0'	10-6	S-1	1.4	1.9	Brn F Sands, little to trace silt, dry		Concrete
	7-10						Bentonite
	3	Sand					
6	30-33	S-2	0.5	0.0	Brn C-F Sands and some gravel, wet	SCREEN	3
	35-50						6
	50/0"	S-3	0	NA			No recovery
					Screen: 2 - 7.5'		
					Riser: 0 - 2'		
					Sand: 1 - 7.5'		
					Bentonite: 0.5 - 1'		
					Concrete: 0 - 0.5'		

PENETRATION RESISTANCE			
140 lb. Wt. falling 30" on 2" O.D. Sampler			
Cohesionless	Density	Cohesive	Consistency
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	Med. Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff

PROPORTIONS USED	ABBREVIATIONS		
trace 0 to 10%	clay <u>cl</u>	very fine <u>vf</u>	trace <u>tr</u>
little 10 to 20%	silt <u>si</u>	fine <u>f</u>	little <u>lt</u>
some 20 to 35%	sand <u>S</u>	medium <u>med</u>	some <u>sm</u>
and 35 to 50%	gravel <u>gvl</u>	coarse <u>c</u>	and <u>+</u>

TEST BORING / WELL CONSTRUCTION LOG

Tighe & Bond Consulting Engineers, Bellows Falls, Vermont

Project: <i>US Tsubaki</i>
Client: <i>US Tsubaki</i>
Purpose: <i>Site Investigation</i>
Drilling Contractor: <i>Seaboard</i>
Driller: <i>Jeff N.</i>

Job Number: <i>B-360</i>	Well ID: <i>MW-2</i>
Date Started: <i>1/09/04</i>	Finished: <i>1/09/04</i>
T&B Inspector: <i>TRR</i>	
Rig Type: <i>Auger</i>	
Groundwater depth at completion: <i>-6'</i>	

	Type & Quantity
Sand	<i>#2 Sand (~ 1/2 bag)</i>
Bentonite	<i>Hydrated chips -- ~1 bag</i>
Cement	<i>-1 bag</i>
Casing/Cap	<i>Flush Mount</i>

	Casing	Sample	Core	Well
Type		SS	-	<i>PVC</i>
Diameter		2"	-	2"
Weight	-	140 lbs.	-	-
Fall	-	30"	-	-

Depth Ft.	Blows per 6"	Samp No.	Recov (ft.)	PID (ppm)	Sample Description	General Stratigraphy	Well Construction	
							Riser	SCREEN
0'	15-9	S-1	1.6	0.0	Brn Silt with little to trace gravel and F-sand, dry		Concrete	_____
	8-10						Bentonite	_____
3		S-2	1.25	0.0	Brn M-F Sands and silt with some gravel, moist		Sand	_____
							SCREEN	3
6	26-20	S-3	0	NA	No recovery		SCREEN	_____
	38-40						SCREEN	6
9	50/0"				End of boring @9.0' (refusal) - set well @8.5'			
					Screen: 2.5 - 8.5'			
					Riser: 0 - 2.5'			
					Sand: 1.5 - 8.5'			
					Bentonite: 1.0 - 1.5'			
					Concrete: 0 - 1.0'			

PENETRATION RESISTANCE			
140 lb. Wt. falling 30" on 2" O.D. Sampler			
Cohesionless	Density	Cohesive	Consistency
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	Med. Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff

PROPORTIONS USED	ABBREVIATIONS		
trace 0 to 10%	clay <u>cl</u>	very fine <u>vf</u>	trace <u>tr</u>
little 10 to 20%	silt <u>si</u>	fine <u>f</u>	little <u>lt</u>
some 20 to 35%	sand <u>S</u>	medium <u>med</u>	some <u>sm</u>
and 35 to 50%	gravel <u>gvl</u>	coarse <u>c</u>	and <u>+</u>

TEST BORING / WELL CONSTRUCTION LOG

Tighe & Bond Consulting Engineers, Bellows Falls, Vermont

Project: <i>US Tsubaki</i>
Client: <i>US Tsubaki</i>
Purpose: <i>Site Investigation</i>
Drilling Contractor: <i>Seaboard</i>
Driller: <i>Jeff N.</i>

Job Number: <i>B-360</i>	Boring ID: <i>B-3 through B-13</i>
Date Started: <i>1/09/04</i>	Finished: <i>1/09/04</i>
T&B Inspector: <i>TRR</i>	
Rig Type: <i>Auger</i>	
Groundwater depth at completion:	

	Type & Quantity
Sand	<i>NA</i>
Bentonite	<i>NA</i>
Cement	<i>NA</i>
Casing/Cap	<i>NA</i>

	Casing	Sample	Core	Well
Type		<i>SS</i>	-	
Diameter		<i>2"</i>	-	
Weight	-	<i>140 lbs.</i>	-	-
Fall	-	<i>30"</i>	-	-

Depth Ft.	Blows per 6"	Samp No.	Recov (ft.)	PID (ppm)	Sample Description	General Stratigraphy	Well Construction
					BRN, Silts with little to trace fine sands and gravel		3
							6
					<i>Note: Soil Borings B-3 through B-13 ranged from a depth of 2.5 feet to 4.5 feet. Soil characteristics observed consisted of what is described above.</i>		
					<i>Please see Table 1 for field screening results of the samples collected from these borings</i>		

PENETRATION RESISTANCE			
140 lb. Wt. falling 30" on 2" O.D. Sampler			
Cohesionless	Density	Cohesive	Consistency
0-4	Very Loose	0-2	Very Soft
5-9	Loose	3-4	Soft
10-29	Med. Dense	5-8	Med. Stiff
30-49	Dense	9-15	Stiff
50+	Very Dense	16-30	Very Stiff

PROPORTIONS USED	ABBREVIATIONS
trace 0 to 10%	clay <u>cl</u> very fine <u>vf</u> trace <u>tr</u>
little 10 to 20%	silt <u>si</u> fine <u>f</u> little <u>lt</u>
some 20 to 35%	sand <u>S</u> medium <u>med</u> some <u>sm</u>
and 35 to 50%	gravel <u>gvl</u> coarse <u>c</u> and <u>+</u>



STL

Tom Rigley
Tighe and Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

STL Westfield
53 Southampton Road
Westfield, MA 01085

Tel: 413 572 4000 Fax: 413 572 3707
www.stl-inc.com

01/20/2004

Report Number: 212501

Dear Tom Rigley,

The analysis of your sample(s) submitted on 01/13/2004 is now complete and the appropriate analytical report is enclosed. The samples were prepared and analyzed according to established methodologies and protocols. All holding times were met for the methods performed on these samples, unless otherwise noted in the report's case narrative.

If you have any questions regarding this report, please contact your project manager. If you have questions, concerns or comments regarding our service, please do not hesitate to contact me directly.

Thank you for selecting STL-Westfield, and we look forward to working with you on future projects.

Steven C. Hartmann
Laboratory Director
STL Westfield

Technical Review: SA 1/20/04

Total number of pages in this report: 20

ANALYTICAL REPORT

JOB NUMBER: 212501

Prepared For:

Tighe and Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

Attention: Tom Rigley

Date: 01/20/2004

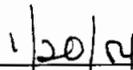


Signature

Name: Anne M. Fuller

Title: Project Manager

E-Mail: afuller@stl-inc.com



Date

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085

PHONE: 413-572-4000

FAX: 413-572-3707

SEVERN
TRENT

STL

MADEP MA014
RIDOH57
CTDPH 0494
VT DECWSD

NY DOH 10843
NH DES 253901-A
NELAP NY10843



STL Westfield
53 Southampton Rd.
Westfield, MA 01085
Tel: (413) 572-4000
Fax: (413) 572-3707

STL Billerica
149 Rangeway Rd.
N. Billerica, MA 01862
Tel: (978) 667-1400
Fax: (978) 667-7871

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/20/2004

STL WESTFIELD
DATA REPORTING QUALIFIERS AND TERMINOLOGY

A number of data qualifiers are widely used within the environmental testing industry and may be utilized in our data reports. The majority of the qualifiers have evolved from the EPA Contract Laboratory Program (CLP).

Report Comments:

All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Soil, sediment and sludge sample results are reported on a "dry weight" basis.

Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert.ID# 10843.

STL-Westfield Certifications: MADEP MA014, CT DPH 0494, NH DES 253901-A, NY DOH 10843, RI DOH 57, VT DECWSD.

According to 40CFR Part 136.3, pH, Total Residual Chlorine and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field analyses, they were not analyzed immediately, but as soon as possible on laboratory receipt.

Analytical result(s) reported as "ND", indicates that the analyte was analyzed for but "not detected."
Analytical result(s) reported as "TNTC" indicates that the microbiological test was "too numerous to count."

Glossary of Qualifiers:

Inorganic Qualifiers (Q-column):

- U Indicates that the analyte was analyzed for but not detected.
- E Indicates an estimated value due to the presence of interference. When applied to GFAA analysis, indicates the one-point method of addition recovered between 40-85 percent.
- B Indicates an estimated result value. The result was measured between the reporting limit and the method detection limit (MDL).

Organic Qualifiers (Q-column):

- U Indicates that the compound was analyzed for but not detected.
- J Indicates an estimated result value. This qualifier is used when mass spectral data indicated the presence of a compound that meets the identification criteria and the result is less than the specified quantitation limit, but greater than the method detection limit (MDL).
- B Indicates that the compound was found in both the sample and its associated laboratory blank. Indicates possible/probable blank contamination and warns the data user to exercise caution when applying the results to this compound.
- D Indicates all compounds identified in an analysis at a secondary dilution factor.
- E Indicates that the compound in an analysis has exceeded the instrument linear calibration range.

Glossary of Terms:

Surrogates (Surrogate Standards): An organic compound, which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but are not normally found in environmental samples. For semi-volatiles and pesticides/Arochlors, surrogate compounds are added to every blank, sample, matrix spike, matrix spiked duplicate, matrix spike blank (LCS), and standard. These compounds are used to evaluate analytical efficiency by measuring recovery. Poor surrogate recovery may indicate a problem with the sample composition.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/20/2004

Internal Standard: An organic compound, which is similar to the target analyte(s) in chemical composition and behavior in the analytical process. For GC/MS semi-volatiles and volatiles, internal standards are added to every blank, sample, matrix spike, matrix spike duplicate, matrix spike blank (LCS), and standard. Internal standard responses outside of established limits will adversely affect the quantitation and final concentration of target compounds.

Matrix Spike (MS): An aliquot of a sample (water or soil) fortified (spiked) with known quantities of specific compounds (target analytes) and subjected to the entire analytical procedure in order to indicate the appropriateness of the method for matrix interference by measuring recovery. The spiking occurs prior to sample preparation and analysis. Poor spike recovery may indicate a problem with the sample composition.

Laboratory Control Sample (LCS): An aliquot of analyte-free reagent water or sand fortified (spiked) with known quantities of specific compounds (target analytes) and subjected to the entire analytical procedure in order to indicate the appropriateness of the method efficiency.

Blank: An artificial sample of analyte-free water or solvent, designed to monitor the introduction of contaminants into the analytical process.

Method Detection Limit (MDL): The minimum concentration of an analyte or compound that can be measured and reported with 99% confidence that the result concentration is greater than zero.

Petroleum Hydrocarbon Comments:

The following comments are specific to Diesel Range Organics (DRO), by GC/FID:

Results for DRO are based on chromatographable portions of the petroleum product. The Carbon Range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units between C9-C36.

Quantitation is based on the average response factors for a series of hydrocarbons standards. The sample result from the DRO fraction is independent of the target compound assignment.

Samples yielding chromatographic patterns that do not agree with any of the method targets are reported as "unmatched".

S A M P L E I N F O R M A T I O N

Date: 01/20/2004

Job Number.: 212501
 Customer...: Tighe and Bond, Inc.
 Attn.....: Tom Rigley

Project Number.....: 20002021
 Customer Project ID....: B360
 Project Description....: B360

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
212501-1	MW-2 (5-7)	Soil	01/09/2004	10:51	01/13/2004	10:45
212501-2	B-3 (0-2)	Soil	01/09/2004	11:40	01/13/2004	10:45
212501-3	B-8 (2.5)	Soil	01/09/2004	13:05	01/13/2004	10:45
212501-4	B-13 (2.5)	Soil	01/09/2004	15:09	01/13/2004	10:45
212501-5	Trip Blank	Methanol	01/09/2004	08:00	01/13/2004	10:45

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2 (5-7)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 10:51
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-1
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 5030 Met	Sample Preparation	Complete			Text	01/15/04	caox
% Solids 160.3	% Solids	79.8		0.1	%	01/14/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	32.9		4.14	mg/Kg	01/16/04	baf
SW846 8260B	Volatile Organics						
	Chloromethane*	ND	U	6	ug/Kg	01/15/04	caox
	Vinyl chloride*	ND	U	6	ug/Kg	01/15/04	caox
	Bromomethane*	ND	U	6	ug/Kg	01/15/04	caox
	Chloroethane*	ND	U	6	ug/Kg	01/15/04	caox
	Trichlorofluoromethane (Freon 11)*	ND	U	3	ug/Kg	01/15/04	caox
	1,1-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	Acetone*	220		59	ug/Kg	01/15/04	caox
	Methylene chloride*	ND	U	6	ug/Kg	01/15/04	caox
	trans-1,2-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	Methyl-tert-butyl-ether (MTBE)*	ND	U	6	ug/Kg	01/15/04	caox
	1,1-Dichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	2,2-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	cis-1,2-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	2-Butanone (MEK)*	52		23	ug/Kg	01/15/04	caox
	Bromochloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	Chloroform*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,1-Trichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,1-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	Carbon tetrachloride*	ND	U	3	ug/Kg	01/15/04	caox
	Benzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Trichloroethene (TCE)*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	Dibromomethane*	ND	U	3	ug/Kg	01/15/04	caox
	Bromodichloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	cis-1,3-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	4-Methyl-2-pentanone (MIBK)*	ND	U	23	ug/Kg	01/15/04	caox
	Toluene*	ND	U	3	ug/Kg	01/15/04	caox
	trans-1,3-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,2-Trichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Tetrachloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	2-Hexanone (MNBK)*	ND	U	23	ug/Kg	01/15/04	caox
	Dibromochloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dibromoethane (EDB)*	ND	U	3	ug/Kg	01/15/04	caox
	Chlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,1,2-Tetrachloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Ethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	m&p-Xylenes*	ND	U	3	ug/Kg	01/15/04	caox
	o-Xylene*	ND	U	3	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rongeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2 (5-7)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 10:51
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-1
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Styrene*	ND	U	3	ug/Kg	01/15/04	caox
	Bromoform*	ND	U	3	ug/Kg	01/15/04	caox
	Isopropylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	Bromobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,2,2-Tetrachloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,3-Trichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	n-Propylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	2-Chlorotoluene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3,5-Trimethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	4-Chlorotoluene*	ND	U	3	ug/Kg	01/15/04	caox
	tert-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,4-Trimethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	sec-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	p-Isopropyltoluene*	ND	U	3	ug/Kg	01/15/04	caox
	1,4-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	n-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,4-Trichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	Hexachlorobutadiene*	ND	U	3	ug/Kg	01/15/04	caox
	Naphthalene*	ND	U	29	ug/Kg	01/15/04	caox
	1,2,3-Trichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-3 (0-2)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 11:40
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-2
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 5030 Met	Sample Preparation	Complete			Text	01/15/04	caox
% Solids 160.3	% Solids	95.2		0.1	%	01/14/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	42.0		3.45	mg/Kg	01/16/04	baf
SW846 8260B	Volatile Organics						
	Chloromethane*	ND	U	5	ug/Kg	01/15/04	caox
	Vinyl chloride*	ND	U	5	ug/Kg	01/15/04	caox
	Bromomethane*	ND	U	5	ug/Kg	01/15/04	caox
	Chloroethane*	ND	U	5	ug/Kg	01/15/04	caox
	Trichlorofluoromethane (Freon 11)*	ND	U	2	ug/Kg	01/15/04	caox
	1,1-Dichloroethene*	ND	U	2	ug/Kg	01/15/04	caox
	Acetone*	ND	U	49	ug/Kg	01/15/04	caox
	Methylene chloride*	ND	U	5	ug/Kg	01/15/04	caox
	trans-1,2-Dichloroethene*	ND	U	2	ug/Kg	01/15/04	caox
	Methyl-tert-butyl-ether (MTBE)*	ND	U	5	ug/Kg	01/15/04	caox
	1,1-Dichloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	2,2-Dichloropropane*	ND	U	2	ug/Kg	01/15/04	caox
	cis-1,2-Dichloroethene*	ND	U	2	ug/Kg	01/15/04	caox
	2-Butanone (MEK)*	ND	U	19	ug/Kg	01/15/04	caox
	Bromochloromethane*	ND	U	2	ug/Kg	01/15/04	caox
	Chloroform*	ND	U	2	ug/Kg	01/15/04	caox
	1,1,1-Trichloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	1,1-Dichloropropene*	ND	U	2	ug/Kg	01/15/04	caox
	Carbon tetrachloride*	ND	U	2	ug/Kg	01/15/04	caox
	Benzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,2-Dichloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	Trichloroethene (TCE)*	ND	U	2	ug/Kg	01/15/04	caox
	1,2-Dichloropropane*	ND	U	2	ug/Kg	01/15/04	caox
	Dibromomethane*	ND	U	2	ug/Kg	01/15/04	caox
	Bromodichloromethane*	ND	U	2	ug/Kg	01/15/04	caox
	cis-1,3-Dichloropropene*	ND	U	2	ug/Kg	01/15/04	caox
	4-Methyl-2-pentanone (MIBK)*	ND	U	19	ug/Kg	01/15/04	caox
	Toluene*	ND	U	2	ug/Kg	01/15/04	caox
	trans-1,3-Dichloropropene*	ND	U	2	ug/Kg	01/15/04	caox
	1,1,2-Trichloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	Tetrachloroethene*	ND	U	2	ug/Kg	01/15/04	caox
	1,3-Dichloropropane*	ND	U	2	ug/Kg	01/15/04	caox
	2-Hexanone (MNBK)*	ND	U	19	ug/Kg	01/15/04	caox
	Dibromochloromethane*	ND	U	2	ug/Kg	01/15/04	caox
	1,2-Dibromoethane (EDB)*	ND	U	2	ug/Kg	01/15/04	caox
	Chlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,1,1,2-Tetrachloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	Ethylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	m&p-Xylenes*	ND	U	2	ug/Kg	01/15/04	caox
	o-Xylene*	ND	U	2	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0484
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-3 (0-2)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 11:40
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-2
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Styrene*	ND	U	2	ug/Kg	01/15/04	caox
	Bromoform*	ND	U	2	ug/Kg	01/15/04	caox
	Isopropylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	Bromobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,1,2,2-Tetrachloroethane*	ND	U	2	ug/Kg	01/15/04	caox
	1,2,3-Trichloropropane*	ND	U	2	ug/Kg	01/15/04	caox
	n-Propylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	2-Chlorotoluene*	ND	U	2	ug/Kg	01/15/04	caox
	1,3,5-Trimethylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	4-Chlorotoluene*	ND	U	2	ug/Kg	01/15/04	caox
	tert-Butylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,2,4-Trimethylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	sec-Butylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,3-Dichlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	p-Isopropyltoluene*	ND	U	2	ug/Kg	01/15/04	caox
	1,4-Dichlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	n-Butylbenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,2-Dichlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)*	ND	U	2	ug/Kg	01/15/04	caox
	1,2,4-Trichlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox
	Hexachlorobutadiene*	ND	U	2	ug/Kg	01/15/04	caox
	Naphthalene*	ND	U	24	ug/Kg	01/15/04	caox
	1,2,3-Trichlorobenzene*	ND	U	2	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-8 (2.5)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 13:05
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-3
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 5030 Met	Sample Preparation	Complete			Text	01/15/04	caox
% Solids 160.3	% Solids	92.0		0.1	%	01/14/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	31.0		3.57	mg/Kg	01/16/04	baf
SW846 8260B	Volatile Organics						
	Chloromethane*	ND	U	5	ug/Kg	01/15/04	caox
	Vinyl chloride*	ND	U	5	ug/Kg	01/15/04	caox
	Bromomethane*	ND	U	5	ug/Kg	01/15/04	caox
	Chloroethane*	ND	U	5	ug/Kg	01/15/04	caox
	Trichlorofluoromethane (Freon 11)*	ND	U	3	ug/Kg	01/15/04	caox
	1,1-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	Acetone*	ND	U	51	ug/Kg	01/15/04	caox
	Methylene chloride*	ND	U	5	ug/Kg	01/15/04	caox
	trans-1,2-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	Methyl-tert-butyl-ether (MTBE)*	ND	U	5	ug/Kg	01/15/04	caox
	1,1-Dichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	2,2-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	cis-1,2-Dichloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	2-Butanone (MEK)*	ND	U	20	ug/Kg	01/15/04	caox
	Bromochloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	Chloroform*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,1-Trichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,1-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	Carbon tetrachloride*	ND	U	3	ug/Kg	01/15/04	caox
	Benzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Trichloroethene (TCE)*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	Dibromomethane*	ND	U	3	ug/Kg	01/15/04	caox
	Bromodichloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	cis-1,3-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	4-Methyl-2-pentanone (MIBK)*	ND	U	20	ug/Kg	01/15/04	caox
	Toluene*	ND	U	3	ug/Kg	01/15/04	caox
	trans-1,3-Dichloropropene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,2-Trichloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Tetrachloroethene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3-Dichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	2-Hexanone (MNBK)*	ND	U	20	ug/Kg	01/15/04	caox
	Dibromochloromethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dibromoethane (EDB)*	ND	U	3	ug/Kg	01/15/04	caox
	Chlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,1,2-Tetrachloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	Ethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	m&p-Xylenes*	ND	U	3	ug/Kg	01/15/04	caox
	o-Xylene*	ND	U	3	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-8 (2.5)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 13:05
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-3
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Styrene*	ND	U	3	ug/Kg	01/15/04	caox
	Bromoform*	ND	U	3	ug/Kg	01/15/04	caox
	Isopropylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	Bromobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,1,2,2-Tetrachloroethane*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,3-Trichloropropane*	ND	U	3	ug/Kg	01/15/04	caox
	n-Propylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	2-Chlorotoluene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3,5-Trimethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	4-Chlorotoluene*	ND	U	3	ug/Kg	01/15/04	caox
	tert-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,4-Trimethylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	sec-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,3-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	p-Isopropyltoluene*	ND	U	3	ug/Kg	01/15/04	caox
	1,4-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	n-Butylbenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)*	ND	U	3	ug/Kg	01/15/04	caox
	1,2,4-Trichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox
	Hexachlorobutadiene*	ND	U	3	ug/Kg	01/15/04	caox
	Naphthalene*	ND	U	25	ug/Kg	01/15/04	caox
	1,2,3-Trichlorobenzene*	ND	U	3	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.

Page 9



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-13 (2.5)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 15:09
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-4
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SWB46 5030 Met	Sample Preparation	Complete			Text	01/15/04	caox
% Solids 160.3	% Solids	94.6		0.1	%	01/14/04	grb
SWB46 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	28.9		3.49	mg/Kg	01/16/04	baF
SWB46 8260B	Volatile Organics						
	Chloromethane*	ND	U	15	ug/Kg	01/15/04	caox
	Vinyl chloride*	ND	U	15	ug/Kg	01/15/04	caox
	Bromomethane*	ND	U	15	ug/Kg	01/15/04	caox
	Chloroethane*	ND	U	15	ug/Kg	01/15/04	caox
	Trichlorofluoromethane (Freon 11)*	ND	U	8	ug/Kg	01/15/04	caox
	1,1-Dichloroethene*	ND	U	8	ug/Kg	01/15/04	caox
	Acetone*	ND	U	150	ug/Kg	01/15/04	caox
	Methylene chloride*	ND	U	15	ug/Kg	01/15/04	caox
	trans-1,2-Dichloroethene*	ND	U	8	ug/Kg	01/15/04	caox
	Methyl-tert-butyl-ether (MTBE)*	ND	U	15	ug/Kg	01/15/04	caox
	1,1-Dichloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	2,2-Dichloropropane*	ND	U	8	ug/Kg	01/15/04	caox
	cis-1,2-Dichloroethene*	ND	U	8	ug/Kg	01/15/04	caox
	2-Butanone (MEK)*	ND	U	61	ug/Kg	01/15/04	caox
	Bromochloromethane*	ND	U	8	ug/Kg	01/15/04	caox
	Chloroform*	ND	U	8	ug/Kg	01/15/04	caox
	1,1,1-Trichloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	1,1-Dichloropropene*	ND	U	8	ug/Kg	01/15/04	caox
	Carbon tetrachloride*	ND	U	8	ug/Kg	01/15/04	caox
	Benzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,2-Dichloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	Trichloroethene (TCE)*	ND	U	8	ug/Kg	01/15/04	caox
	1,2-Dichloropropane*	ND	U	8	ug/Kg	01/15/04	caox
	Dibromomethane*	ND	U	8	ug/Kg	01/15/04	caox
	Bromodichloromethane*	ND	U	8	ug/Kg	01/15/04	caox
	cis-1,3-Dichloropropene*	ND	U	8	ug/Kg	01/15/04	caox
	4-Methyl-2-pentanone (MIBK)*	ND	U	61	ug/Kg	01/15/04	caox
	Toluene*	ND	U	8	ug/Kg	01/15/04	caox
	trans-1,3-Dichloropropene*	ND	U	8	ug/Kg	01/15/04	caox
	1,1,2-Trichloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	Tetrachloroethene*	ND	U	8	ug/Kg	01/15/04	caox
	1,3-Dichloropropane*	ND	U	8	ug/Kg	01/15/04	caox
	2-Hexanone (MNBK)*	ND	U	61	ug/Kg	01/15/04	caox
	Dibromochloromethane*	ND	U	8	ug/Kg	01/15/04	caox
	1,2-Dibromoethane (EDB)*	ND	U	8	ug/Kg	01/15/04	caox
	Chlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,1,1,2-Tetrachloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	Ethylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	m&p-Xylenes*	ND	U	8	ug/Kg	01/15/04	caox
	o-Xylene*	ND	U	8	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rungeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: B-13 (2.5)
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 15:09
 Sample Matrix.....: Soil

Laboratory Sample ID: 212501-4
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Styrene*	ND	U	8	ug/Kg	01/15/04	caox
	Bromofom*	ND	U	8	ug/Kg	01/15/04	caox
	Isopropylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	Bromobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,1,2,2-Tetrachloroethane*	ND	U	8	ug/Kg	01/15/04	caox
	1,2,3-Trichloropropane*	ND	U	8	ug/Kg	01/15/04	caox
	n-Propylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	2-Chlorotoluene*	ND	U	8	ug/Kg	01/15/04	caox
	1,3,5-Trimethylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	4-Chlorotoluene*	ND	U	8	ug/Kg	01/15/04	caox
	tert-Butylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,2,4-Trimethylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	sec-Butylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,3-Dichlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	p-Isopropyltoluene*	ND	U	8	ug/Kg	01/15/04	caox
	1,4-Dichlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	n-Butylbenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,2-Dichlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)*	ND	U	8	ug/Kg	01/15/04	caox
	1,2,4-Trichlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox
	Hexachlorobutadiene*	ND	U	8	ug/Kg	01/15/04	caox
	Naphthalene*	ND	U	76	ug/Kg	01/15/04	caox
	1,2,3-Trichlorobenzene*	ND	U	8	ug/Kg	01/15/04	caox

* In Description = Dry Wgt.



STL

MADEP MA014
 RIDOH57
 CTDPH 0484
 VT DECWSD

NY DOH 10843
 NH DES 263901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: Trip Blank
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 08:00
 Sample Matrix.....: Methanol

Laboratory Sample ID: 212501-5
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 8260B	Volatile Organics	ND	U	250	ug/Kg	01/14/04	caox
	Chloromethane	ND	U	250	ug/Kg	01/14/04	caox
	Vinyl chloride	ND	U	250	ug/Kg	01/14/04	caox
	Bromomethane	ND	U	250	ug/Kg	01/14/04	caox
	Chloroethane	ND	U	120	ug/Kg	01/14/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	120	ug/Kg	01/14/04	caox
	1,1-Dichloroethene	ND	U	2500	ug/Kg	01/14/04	caox
	Acetone	ND	U	250	ug/Kg	01/14/04	caox
	Methylene chloride	ND	U	120	ug/Kg	01/14/04	caox
	trans-1,2-Dichloroethene	ND	U	250	ug/Kg	01/14/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	120	ug/Kg	01/14/04	caox
	1,1-Dichloroethane	ND	U	120	ug/Kg	01/14/04	caox
	2,2-Dichloropropane	ND	U	120	ug/Kg	01/14/04	caox
	cis-1,2-Dichloroethene	ND	U	120	ug/Kg	01/14/04	caox
	2-Butanone (MEK)	ND	U	1000	ug/Kg	01/14/04	caox
	Bromochloromethane	ND	U	120	ug/Kg	01/14/04	caox
	Chloroform	ND	U	120	ug/Kg	01/14/04	caox
	1,1,1-Trichloroethane	ND	U	120	ug/Kg	01/14/04	caox
	1,1-Dichloropropene	ND	U	120	ug/Kg	01/14/04	caox
	Carbon tetrachloride	ND	U	120	ug/Kg	01/14/04	caox
	Benzene	ND	U	120	ug/Kg	01/14/04	caox
	1,2-Dichloroethane	ND	U	120	ug/Kg	01/14/04	caox
	Trichloroethene (TCE)	ND	U	120	ug/Kg	01/14/04	caox
	1,2-Dichloropropane	ND	U	120	ug/Kg	01/14/04	caox
	Dibromomethane	ND	U	120	ug/Kg	01/14/04	caox
	Bromodichloromethane	ND	U	120	ug/Kg	01/14/04	caox
	cis-1,3-Dichloropropene	ND	U	120	ug/Kg	01/14/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	1000	ug/Kg	01/14/04	caox
	Toluene	ND	U	120	ug/Kg	01/14/04	caox
	trans-1,3-Dichloropropene	ND	U	120	ug/Kg	01/14/04	caox
	1,1,2-Trichloroethane	ND	U	120	ug/Kg	01/14/04	caox
	Tetrachloroethene	ND	U	120	ug/Kg	01/14/04	caox
	1,3-Dichloropropane	ND	U	120	ug/Kg	01/14/04	caox
	2-Hexanone (MNBK)	ND	U	1000	ug/Kg	01/14/04	caox
	Dibromochloromethane	ND	U	120	ug/Kg	01/14/04	caox
	1,2-Dibromoethane (EDB)	ND	U	120	ug/Kg	01/14/04	caox
	Chlorobenzene	ND	U	120	ug/Kg	01/14/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	120	ug/Kg	01/14/04	caox
	Ethylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	m&p-Xylenes	ND	U	120	ug/Kg	01/14/04	caox
o-Xylene	ND	U	120	ug/Kg	01/14/04	caox	
Styrene	ND	U	120	ug/Kg	01/14/04	caox	
Bromoform	ND	U	120	ug/Kg	01/14/04	caox	
Isopropylbenzene	ND	U	120	ug/Kg	01/14/04	caox	
Bromobenzene	ND	U	120	ug/Kg	01/14/04	caox	
1,1,2,2-Tetrachloroethane	ND	U	120	ug/Kg	01/14/04	caox	
1,2,3-Trichloropropane	ND	U	120	ug/Kg	01/14/04	caox	
n-Propylbenzene	ND	U	120	ug/Kg	01/14/04	caox	
2-Chlorotoluene	ND	U	120	ug/Kg	01/14/04	caox	

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: Trip Blank
 Date Sampled.....: 01/09/2004
 Time Sampled.....: 08:00
 Sample Matrix.....: Methanol

Laboratory Sample ID: 212501-5
 Date Received.....: 01/13/2004
 Time Received.....: 10:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	1,3,5-Trimethylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	4-Chlorotoluene	ND	U	120	ug/Kg	01/14/04	caox
	tert-Butylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	1,2,4-Trimethylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	sec-Butylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	1,3-Dichlorobenzene	ND	U	120	ug/Kg	01/14/04	caox
	p-Isopropyltoluene	ND	U	120	ug/Kg	01/14/04	caox
	1,4-Dichlorobenzene	ND	U	120	ug/Kg	01/14/04	caox
	n-Butylbenzene	ND	U	120	ug/Kg	01/14/04	caox
	1,2-Dichlorobenzene	ND	U	120	ug/Kg	01/14/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	120	ug/Kg	01/14/04	caox
	1,2,4-Trichlorobenzene	ND	U	120	ug/Kg	01/14/04	caox
	Hexachlorobutadiene	ND	U	120	ug/Kg	01/14/04	caox
	Naphthalene	ND	U	1200	ug/Kg	01/14/04	caox
	1,2,3-Trichlorobenzene	ND	U	120	ug/Kg	01/14/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY CHRONICLE

Job Number: 212501

Date: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Lab ID: 212501-1	Client ID: MW-2 (5-7)	Date Recvd: 01/13/2004	Sample Date: 01/09/2004				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
% Solids 160.3	% Solids Determination	1	22926			01/14/2004 0000	
SW846 5030 Met	5030 Methanol Extr. Purge & Trap	1	22929			01/15/2004 1011	
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23021	22954		01/16/2004 1301	
SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	22954			01/15/2004 0000	
SW846 8260B	Volatile Organics	1	22962			01/15/2004 1543	1

Lab ID: 212501-2	Client ID: B-3 (0-2)	Date Recvd: 01/13/2004	Sample Date: 01/09/2004				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
% Solids 160.3	% Solids Determination	1	22926			01/14/2004 0000	
SW846 5030 Met	5030 Methanol Extr. Purge & Trap	1	22929			01/15/2004 1011	
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23021	22954		01/16/2004 1545	
SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	22954			01/15/2004 0000	
SW846 8260B	Volatile Organics	1	22962			01/15/2004 1614	1

Lab ID: 212501-3	Client ID: B-8 (2.5)	Date Recvd: 01/13/2004	Sample Date: 01/09/2004				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
% Solids 160.3	% Solids Determination	1	22926			01/14/2004 0000	
SW846 5030 Met	5030 Methanol Extr. Purge & Trap	1	22929			01/15/2004 1011	
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23021	22954		01/16/2004 1626	
SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	22954			01/15/2004 0000	
SW846 8260B	Volatile Organics	1	22962			01/15/2004 1646	1

Lab ID: 212501-4	Client ID: B-13 (2.5)	Date Recvd: 01/13/2004	Sample Date: 01/09/2004				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
% Solids 160.3	% Solids Determination	1	22926			01/14/2004 0000	
SW846 5030 Met	5030 Methanol Extr. Purge & Trap	1	22929			01/15/2004 1011	
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23021	22954		01/16/2004 1504	
SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	22954			01/15/2004 0000	
SW846 8260B	Volatile Organics	1	22962			01/15/2004 1718	1

Lab ID: 212501-5	Client ID: Trip Blank	Date Recvd: 01/13/2004	Sample Date: 01/09/2004				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
SW846 8260B	Volatile Organics	1	22990			01/14/2004 1046	1

SURROGATE RECOVERIES REPORT

Job Number.: 212501

Report Date.: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: Diesel Range Organics (DRO)
Batch(s).....: 23021

Method Code...: 8015D
Test Matrix...: Water

Prep Batch.....: 22954
Equipment Code:

Lab ID	DT	Sample ID	Date	OTERPH
212501- 1		MW-2 (5-7)	01/16/2004	66.0
212501- 2		B-3 (0-2)	01/16/2004	76.9
212501- 3		B-8 (2.5)	01/16/2004	70.8
212501- 4		B-13 (2.5)	01/16/2004	64.2

Test	Test Description	Limits
OTERPH	o-Terphenyl (surr)	40.0 - 140.

SURROGATE RECOVERIES REPORT

Job Number.: 212501

Report Date.: 01/20/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: Volatile Organics
Batch(s).....: 22962 22990

Method Code...: 8260
Test Matrix...: Water

Prep Batch.....:
Equipment Code: VHPMS1

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLDB
212501- 1		MW-2 (5-7)	01/15/2004	114.8	103.8	103.4	99.4
212501- 2		B-3 (0-2)	01/15/2004	115.8	103.8	105.3	99.5
212501- 3		B-8 (2.5)	01/15/2004	114.5	103.5	104.4	99.8
212501- 4		B-13 (2.5)	01/15/2004	118.7	103.3	105.4	99.8
212501- 5		Trip Blank	01/14/2004	91.5	99.4	99.2	99.8

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	70.0 - 130.
BRFLBE	4-Bromofluorobenzene (surr)	70.0 - 130.
DBRFLM	Dibromofluoromethane (surr)	70.0 - 130.
TOLDB	Toluene-d8 (surr)	70.0 - 130.

rpjsckl	Job Sample Receipt Checklist Report	V2
Job Number.: 212501	Location.: 57345	Check List Number.: 1
Customer Job ID.....:		Description.:
Project Number.: 20002021	Project Description.: B360	Job Check List Date.: 01/13/2004
Customer.....: Tighe and Bond, Inc.	Contact.: Tom Rigley	Date of the Report...: 01/13/2004
		Project Manager.....: amf
Questions ?	(Y/N)	Comments
Chain-of-Custody Present?.....	Y	
...If "yes", completed properly?.....	Y	
Custody seal on shipping container?.....	N	
...If "yes", custody seal intact?.....		
Custody seals on sample containers?.....	N	
...If "yes", custody seal intact?.....		
Samples iced?.....	Y	
Temperature of cooler acceptable? (4 deg C +/- 2). N		
...Temperature at receipt_____		9.3C
Samples received intact (good condition)?.....	N	
Volatile samples acceptable? (no headspace).....	Y	
Is a Trip Blank required?.....	Y	
Was a Trip Blank provided?.....	Y	
Correct containers used?.....	N	
Adequate sample volume provided?.....	Y	
Samples preserved correctly?.....	Y	
Samples received within holding-time?.....	Y	
Agreement between COC and sample labels?.....	Y	
Comments.....		
If samples were shipped was there an air bill #?..	Y	FedEx 840755665288
Sample Custodian Signature/Date.....		mjb 1/13/04  1/13/04

SAMPLE COLLECTION DATA: GROUND WATER

Client: TSUBAKI

Job No.: B-360

Contact: CHUCK BRAUNDESE

Sampling Location: BOWNINGTON, VT

Collected By: TR

Well No.: MW-1

Date: 1/21/04

Time Collected: 1311

Weather Clear / Cold

Water Table:

Diameter of Well	<u>2</u>	inches
Well Depth (from top of PVC Standpipe)	<u>~ 9.0</u>	feet
Depth to Water Table (from top of PVC standpipe)	<u>7.50</u>	feet
Length of Water Column	<u>1.50</u>	feet

Purge Volume: LWC x 0.17 / 0.38 / 0.08 (circle one) x 3 =

Volume Purged 10.2 Liters

Purging Method: (please check)

Submersible pump

Teflon Bailer

Other (explain) PERISTALTIC

Sampling Method:

Type of Bailer: Teflon _____ ID# _____ Other (explain) _____ Dedicated Bailer YES NO

If not explain decontamination procedures

SAMPLE COLLECTION & FIELD DATA

Volume removed prior to analysis	pH	Specific Conductance µmhos/cm @25°C	Temperature °C	Dissolved Oxygen mg/L	ORP (mV)	Time Analyzed
<u>10.2 L</u>	<u>5.90</u>	<u>106</u>	<u>5.59</u>	<u>5.93</u>	<u>89</u>	<u>1310</u>

CONTAINERS & PRESERVATIVES

Type of Container	Number of Containers	Preservative Type / Amount	Analysis Required	Field pH
<u>VOAs</u>	<u>4</u>	<u>HCl</u>	<u>8260</u>	<u>—</u>
<u>Amber Liter</u>	<u>2</u>	<u>HCl</u>	<u>TPH (DRO ONLY)</u>	

If sample was taken for dissolved metals, were these samples field filtered? NA

Date: _____ Time: _____ By: _____ Filter Pore Size & Type: _____

General Notes: _____

FIELD WATER QUALITY MEASUREMENTS FORM

LOW FLOW WELL PURGING & SAMPLING

Location (Site/Facility Name): US Tsubaki		Depth to Top of Screen (ft. below MP):	
T&B Project No.: B-360-275		Depth to Bottom of Screen (ft. below MP): 8.75	
Field Personnel: TR		Pump Intake (ft. below MP): 7.5	
Date & Weather: 1/21/2004		Intake (Tubing) Material & Diameter (in.):	
Well Identification: MW-2		Purging Device (pump type): Peristaltic	
Identify Measuring Point (MP): Top of PVC		Initial Depth to Water (ft. below MP): 6.03	

Clock Time (24 hr.)	Depth to Water (ft. below MP)	Pump Dial Setting ()	Purge Rate (ml/min)	Cum. Volume Purged (liters)	Temp. (°C)	Specific Conductance (µS/cm)	pH (unitless)	Oxid-Red. Potential or Eh (mv)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	Comments
1037	6.03										
1040	6.27	0	300		6.19	1.18	7.53	-37	1.99	26	START PUMP
1045	6.41	0	300		6.00	1.23	8.04	-51	0.35	34	
1050	6.50	0	300		5.91	1.32	7.93	-76	0.19	24	
1055	6.56	0	300		5.55	1.34	7.79	-43	0.00	33	
1100	6.61	0	300		5.53	1.32	7.77	-45	0.00	22	
1105	6.14	0	300	8.4	5.51	1.27	7.74	-46	0.00	20	
1108											Collect Sample

STABILIZATION: within 3% within 3% within 3% 0.1 pH unit 10 millivolts within 10% within 10% within 10% (or <1 NTU)

(stabilization = 3 consecutive readings meeting all the above criteria)

- Notes:
- (1) Identify pump on/off times and sample collection time in Comments section.
 - (2) Identify pump dial setting units (hertz, rpm, etc.) and purge rate units, as shown above.
 - (3) All water quality instruments shall be calibrated at least daily.



NOTE & BOND
SAMPLE COLLECTION DATA: GROUND WATER

Client: TsUBAKI Job No.: B-360-2-75
 Contact: CHUCK BRANDEGE Sampling Location: TsUBAKI
 Collected By: TR Well No.: MW-2
 Date: 1/21/04 Time Collected: 1106
 Weather: Clear / Cold (Teens)

Water Table:

Diameter of Well 2 inches
 Well Depth (from top of PVC Standpipe) 8.75 feet
 Depth to Water Table (from top of PVC standpipe) 6.03 feet
 Length of Water Column 2.72 feet

Purge Volume: LWC x 0.17 / 0.38 / 0.08 (circle one) x 3 = _____ Volume Purged 8.4 L
Purging Method: (please check)
 Submersible pump _____ Teflon Bailer _____ Other (explain) PERISTALTIC

Sampling Method:
 Type of Bailer: Teflon _____ ID# _____ Other (explain) _____ Dedicated Bailer YES (NO)
 If not explain decontamination procedures

SAMPLE COLLECTION & FIELD DATA

Volume removed prior to analysis	pH	Specific Conductance $\mu\text{mhos/cm @25}^\circ\text{C}$	Temperature $^\circ\text{C}$	Dissolved Oxygen mg/L	ORP(mV)	Time Analyzed
<u>8.4 L</u>	<u>7.74</u>	<u>1270</u>	<u>5.51</u>	<u>0.00</u>	<u>-46</u>	<u>1105</u>

CONTAINERS & PRESERVATIVES

Type of Container	Number of Containers	Preservative Type / Amount	Analysis Required	Field pH
<u>VOA's</u>	<u>4</u>	<u>HCl</u>	<u>8260</u>	<u>-</u>
<u>AMBER LITER</u>	<u>2</u>	<u>HCl</u>	<u>TPH</u>	<u>-</u>
<u>"</u>	<u>2</u>	<u>NONE</u>	<u>PCBS</u>	<u>-</u>

If sample was taken for dissolved metals, were these samples field filtered? NA

Date: _____ Time: _____ By: _____ Filter Pore Size & Type: _____

General Notes: _____

Tom Rigley
Tighe and Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

STL Westfield
53 Southampton Road
Westfield, MA 01085

Tel: 413 572 4000 Fax: 413 572 3707
www.stl-inc.com

01/28/2004

Report Number: 212668

Dear Tom Rigley,

The analysis of your sample(s) submitted on 01/22/2004 is now complete and the appropriate analytical report is enclosed. The samples were prepared and analyzed according to established methodologies and protocols. All holding times were met for the methods performed on these samples, unless otherwise noted in the report's case narrative.

If you have any questions regarding this report, please contact your project manager. If you have questions, concerns or comments regarding our service, please do not hesitate to contact me directly.

Thank you for selecting STL-Westfield, and we look forward to working with you on future projects.

Steven C. Hartmann
Laboratory Director
STL Westfield

Technical Review: SH 1/29/04

Total number of pages in this report: 20

ANALYTICAL REPORT

JOB NUMBER: 212668

Prepared For:

Tighe and Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

Attention: Tom Rigley

Date: 01/28/2004


Signature

1/30/04
Date

Name: Anne M. Fuller

Title: Project Manager

E-Mail: afuller@stl-inc.com

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085

PHONE: 413-572-4000

FAX: 413-572-3707

**SEVERN
TRENT**

STL

MADEP MA014
RIDOH57
CTDPH 0494
VT DECWSD

NELAP FL E87912 TOX
NY DOH 10843
NH DES 253901-A
NELAP NY10843



STL Westfield
53 Southampton Rd.
Westfield, MA 01085
Tel: (413) 572-4000
Fax: (413) 572-3707

STL Billerica
149 Rangeway Rd.
N. Billerica, MA 01862
Tel: (978) 667-1400
Fax: (978) 667-7871

CASE NARRATIVE FOR REPORT NUMBER: 212668

Client Name : Tighe & Bond, VT

Project Name: B360

Date : 1/29/04

212668-1,2 Samples were diluted by a factor of 10x due to foaming that compromises method performance.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/28/2004

STL WESTFIELD
DATA REPORTING QUALIFIERS AND TERMINOLOGY

A number of data qualifiers are widely used within the environmental testing industry and may be utilized in our data reports. The majority of the qualifiers have evolved from the EPA Contract Laboratory Program (CLP).

Report Comments:

All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Soil, sediment and sludge sample results are reported on a "dry weight" basis.

Reporting limits are adjusted for sample size used, dilutions and moisture content, if applicable.

The test results for the noted analytical method(s) meet the requirements of NELAC. Lab Cert.ID# 10843.

STL-Westfield Certifications: MA DEP MA014, CT DPH 0494, NH DES 253901-A, NY DOH 10843, RI DOH 57, VT DECWSD.
FL NELAC E87912 (TOX)

According to 40CFR Part 136.3, pH, Total Residual Chlorine and Dissolved Oxygen analyses are to be performed immediately after aqueous sample collection. When these parameters are not indicated as field analyses, they were not analyzed immediately, but as soon as possible on laboratory receipt.

Analytical result(s) reported as "ND", indicates that the analyte was analyzed for but "not detected."

Analytical result(s) reported as "TNTC" indicates that the microbiological test was "too numerous to count."

Glossary of Qualifiers:

Inorganic Qualifiers (Q-column):

- U Indicates that the analyte was analyzed for but not detected.
- E Indicates an estimated value due to the presence of interference. When applied to GFAA analysis, indicates the one-point method of addition recovered between 40-85 percent.
- B Indicates an estimated result value. The result was measured between the reporting limit and the method detection limit (MDL).

Organic Qualifiers (Q-column):

- U Indicates that the compound was analyzed for but not detected.
- J Indicates an estimated result value. This qualifier is used when mass spectral data indicated the presence of a compound that meets the identification criteria and the result is less than the specified quantitation limit, but greater than the method detection limit (MDL).
- B Indicates that the compound was found in both the sample and its associated laboratory blank. Indicates possible/probable blank contamination and warns the data user to exercise caution when applying the results to this compound.
- D Indicates all compounds identified in an analysis at a secondary dilution factor.
- E Indicates that the compound in an analysis has exceeded the instrument linear calibration range.

Glossary of Terms:

Surrogates (Surrogate Standards): An organic compound, which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but are not normally found in environmental samples. For semi-volatiles and pesticides/Arochlors, surrogate compounds are added to every blank, sample, matrix spike, matrix spiked duplicate, matrix spike blank (LCS), and standard. These compounds are used to evaluate analytical efficiency by measuring recovery. Poor surrogate recovery may indicate a problem with the sample composition.

QUALITY ASSURANCE METHODS

REFERENCES AND NOTES

Report Date: 01/28/2004

Internal Standard: An organic compound, which is similar to the target analyte(s) in chemical composition and behavior in the analytical process. For GC/MS semi-volatiles and volatiles, internal standards are added to every blank, sample, matrix spike, matrix spike duplicate, matrix spike blank (LCS), and standard. Internal standard responses outside of established limits will adversely affect the quantitation and final concentration of target compounds.

Matrix Spike (MS): An aliquot of a sample (water or soil) fortified (spiked) with known quantities of specific compounds (target analytes) and subjected to the entire analytical procedure in order to indicate the appropriateness of the method for matrix interference by measuring recovery. The spiking occurs prior to sample preparation and analysis. Poor spike recovery may indicate a problem with the sample composition.

Laboratory Control Sample (LCS): An aliquot of analyte-free reagent water or sand fortified (spiked) with known quantities of specific compounds (target analytes) and subjected to the entire analytical procedure in order to indicate the appropriateness of the method efficiency.

Blank: An artificial sample of analyte-free water or solvent, designed to monitor the introduction of contaminants into the analytical process.

Method Detection Limit (MDL): The minimum concentration of an analyte or compound that can be measured and reported with 99% confidence that the result concentration is greater than zero.

Petroleum Hydrocarbon Comments:

The following comments are specific to Diesel Range Organics (DRO), by GC/FID:

Results for DRO are based on chromatographable portions of the petroleum product. The Carbon Range refers to the approximate chromatographic region covered by the specified petroleum product in straight-chain carbon units between C9-C36.

Quantitation is based on the average response factors for a series of hydrocarbons standards. The sample result from the DRO fraction is independent of the target compound assignment.

Samples yielding chromatographic patterns that do not agree with any of the method targets are reported as "unmatched".

SAMPLE INFORMATION
Date: 01/28/2004

Job Number.: 212668
Customer....: Tighe and Bond, Inc.
Attn.....: Tom Rigley

Project Number.....: 20002021
Customer Project ID....: B360
Project Description....: B360

Laboratory Sample ID	Customer Sample ID	Sample Matrix	Date Sampled	Time Sampled	Date Received	Time Received
212668-1	MW-2	Water	01/21/2004	11:06	01/22/2004	09:45
212668-2	MW-1	Water	01/21/2004	13:11	01/22/2004	09:45
212668-3	Trip Blank	Lab Water	01/19/2004	09:00	01/22/2004	09:45
212668-4	SED-1	Soil	01/21/2004	14:00	01/22/2004	09:45
212668-5	SED-2	Soil	01/21/2004	14:10	01/22/2004	09:45
212668-6	Trans-1	Soil	01/21/2004	13:29	01/22/2004	09:45

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 11:06
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-1
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 3510C	Separatory Funnel Liq/Liq Extraction	Complete				01/22/04	cdt
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total	0.19		0.10	mg/L	01/22/04	baf
SW846 8082A	PCB Analysis						
	Aroclor 1016	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1221	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1232	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1242	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1248	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1254	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1260	ND	U	0.30	ug/L	01/22/04	baf
SW846 8260B	Volatile Organics						
	Chloromethane	ND	U	20	ug/L	01/26/04	caox
	Vinyl chloride	ND	U	10	ug/L	01/26/04	caox
	Bromomethane	ND	U	20	ug/L	01/26/04	caox
	Chloroethane	ND	U	20	ug/L	01/26/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	Acetone	ND	U	500	ug/L	01/26/04	caox
	Methylene chloride	ND	U	20	ug/L	01/26/04	caox
	trans-1,2-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloroethane	ND	U	10	ug/L	01/26/04	caox
	2,2-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	cis-1,2-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	2-Butanone (MEK)	ND	U	100	ug/L	01/26/04	caox
	Bromochloromethane	ND	U	10	ug/L	01/26/04	caox
	Chloroform	ND	U	10	ug/L	01/26/04	caox
	1,1,1-Trichloroethane	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloropropene	ND	U	10	ug/L	01/26/04	caox
	Carbon tetrachloride	ND	U	10	ug/L	01/26/04	caox
	Benzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichloroethane	ND	U	10	ug/L	01/26/04	caox
	Trichloroethene (TCE)	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	Dibromomethane	ND	U	10	ug/L	01/26/04	caox
	Bromodichloromethane	ND	U	10	ug/L	01/26/04	caox
	cis-1,3-Dichloropropene	ND	U	5	ug/L	01/26/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	100	ug/L	01/26/04	caox
	Toluene	ND	U	10	ug/L	01/26/04	caox
	trans-1,3-Dichloropropene	ND	U	5	ug/L	01/26/04	caox
	1,1,2-Trichloroethane	ND	U	10	ug/L	01/26/04	caox
	Tetrachloroethene	ND	U	10	ug/L	01/26/04	caox
	1,3-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	2-Hexanone (MNBK)	ND	U	100	ug/L	01/26/04	caox

Description = Dry Wgt.

Page 4



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rungeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 11:06
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-1
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Dibromochloromethane	ND	U	10	ug/L	01/26/04	caox
	1,2-Dibromoethane (EDB)	ND	U	10	ug/L	01/26/04	caox
	Chlorobenzene	ND	U	10	ug/L	01/26/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	10	ug/L	01/26/04	caox
	Ethylbenzene	ND	U	10	ug/L	01/26/04	caox
	m&p-Xylenes	ND	U	10	ug/L	01/26/04	caox
	o-Xylene	ND	U	10	ug/L	01/26/04	caox
	Styrene	ND	U	10	ug/L	01/26/04	caox
	Bromoform	ND	U	10	ug/L	01/26/04	caox
	Isopropylbenzene	ND	U	10	ug/L	01/26/04	caox
	Bromobenzene	ND	U	10	ug/L	01/26/04	caox
	1,1,2,2-Tetrachloroethane	ND	U	10	ug/L	01/26/04	caox
	1,2,3-Trichloropropane	ND	U	30	ug/L	01/26/04	caox
	n-Propylbenzene	ND	U	10	ug/L	01/26/04	caox
	2-Chlorotoluene	ND	U	10	ug/L	01/26/04	caox
	1,3,5-Trimethylbenzene	ND	U	10	ug/L	01/26/04	caox
	4-Chlorotoluene	ND	U	10	ug/L	01/26/04	caox
	tert-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,2,4-Trimethylbenzene	ND	U	10	ug/L	01/26/04	caox
	sec-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,3-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	p-Isopropyltoluene	ND	U	10	ug/L	01/26/04	caox
	1,4-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	n-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50	ug/L	01/26/04	caox
	1,2,4-Trichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	Hexachlorobutadiene	ND	U	6	ug/L	01/26/04	caox
	Naphthalene	ND	U	50	ug/L	01/26/04	caox
	1,2,3-Trichlorobenzene	ND	U	10	ug/L	01/26/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tigue and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-1
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 13:11
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-2
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SWB46 3510C	Separatory Funnel Liq/Liq Extraction	Complete				01/22/04	cdt
SWB46 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total	ND	U	0.10	mg/L	01/22/04	baf
SWB46 8260B	Volatile Organics						
	Chloromethane	ND	U	20	ug/L	01/26/04	caox
	Vinyl chloride	ND	U	10	ug/L	01/26/04	caox
	Bromomethane	ND	U	20	ug/L	01/26/04	caox
	Chloroethane	ND	U	20	ug/L	01/26/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	Acetone	ND	U	500	ug/L	01/26/04	caox
	Methylene chloride	ND	U	20	ug/L	01/26/04	caox
	trans-1,2-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloroethane	ND	U	10	ug/L	01/26/04	caox
	2,2-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	cis-1,2-Dichloroethene	ND	U	10	ug/L	01/26/04	caox
	2-Butanone (MEK)	ND	U	100	ug/L	01/26/04	caox
	Bromochloromethane	ND	U	10	ug/L	01/26/04	caox
	Chloroform	ND	U	10	ug/L	01/26/04	caox
	1,1,1-Trichloroethane	ND	U	10	ug/L	01/26/04	caox
	1,1-Dichloropropene	ND	U	10	ug/L	01/26/04	caox
	Carbon tetrachloride	ND	U	10	ug/L	01/26/04	caox
	Benzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichloroethane	ND	U	10	ug/L	01/26/04	caox
	Trichloroethene (TCE)	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	Dibromomethane	ND	U	10	ug/L	01/26/04	caox
	Bromodichloromethane	ND	U	10	ug/L	01/26/04	caox
	cis-1,3-Dichloropropene	ND	U	5	ug/L	01/26/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	100	ug/L	01/26/04	caox
	Toluene	ND	U	10	ug/L	01/26/04	caox
	trans-1,3-Dichloropropene	ND	U	5	ug/L	01/26/04	caox
	1,1,2-Trichloroethane	ND	U	10	ug/L	01/26/04	caox
	Tetrachloroethene	ND	U	10	ug/L	01/26/04	caox
	1,3-Dichloropropane	ND	U	10	ug/L	01/26/04	caox
	2-Hexanone (MNBK)	ND	U	100	ug/L	01/26/04	caox
	Dibromochloromethane	ND	U	10	ug/L	01/26/04	caox
	1,2-Dibromoethane (EDB)	ND	U	10	ug/L	01/26/04	caox
	Chlorobenzene	ND	U	10	ug/L	01/26/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	10	ug/L	01/26/04	caox
	Ethylbenzene	ND	U	10	ug/L	01/26/04	caox
	m&p-Xylenes	ND	U	10	ug/L	01/26/04	caox
	o-Xylene	ND	U	10	ug/L	01/26/04	caox
	Styrene	ND	U	10	ug/L	01/26/04	caox
	Bromoform	ND	U	10	ug/L	01/26/04	caox

n Description = Dry Wgt.

Page 6



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

Job Number: 212668

LABORATORY TEST RESULTS

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-1

Date Sampled.....: 01/21/2004

Time Sampled.....: 13:11

Sample Matrix.....: Water

Laboratory Sample ID: 212668-2

Date Received.....: 01/22/2004

Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Isopropylbenzene	ND	U	10	ug/L	01/26/04	caox
	Bromobenzene	ND	U	10	ug/L	01/26/04	caox
	1,1,2,2-Tetrachloroethane	ND	U	10	ug/L	01/26/04	caox
	1,2,3-Trichloropropane	ND	U	30	ug/L	01/26/04	caox
	n-Propylbenzene	ND	U	10	ug/L	01/26/04	caox
	2-Chlorotoluene	ND	U	10	ug/L	01/26/04	caox
	1,3,5-Trimethylbenzene	ND	U	10	ug/L	01/26/04	caox
	4-Chlorotoluene	ND	U	10	ug/L	01/26/04	caox
	tert-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,2,4-Trimethylbenzene	ND	U	10	ug/L	01/26/04	caox
	sec-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,3-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	p-Isopropyltoluene	ND	U	10	ug/L	01/26/04	caox
	1,4-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	n-Butylbenzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	50	ug/L	01/26/04	caox
	1,2,4-Trichlorobenzene	ND	U	10	ug/L	01/26/04	caox
	Hexachlorobutadiene	ND	U	6	ug/L	01/26/04	caox
	Naphthalene	ND	U	50	ug/L	01/26/04	caox
	1,2,3-Trichlorobenzene	ND	U	10	ug/L	01/26/04	caox

* In Description = Dry Wgt.

Page 7



MADEP MA014
RIDOH57
CTDPH 0494
VT DECWSD

NELAP FL E87912 TOX
NY DOH 10843
NH DES 253901-A
NELAP NY10843



STL Westfield
53 Southampton Rd.
Westfield, MA 01085
Tel: (413) 572-4000
Fax: (413) 572-3707

STL Billerica
149 Rangeway Rd.
N. Billerica, MA 01862
Tel: (978) 667-1400
Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: Trip Blank
 Date Sampled.....: 01/19/2004
 Time Sampled.....: 09:00
 Sample Matrix.....: Lab Water

Laboratory Sample ID: 212668-3
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 8260B	Volatile Organics						
	Chloromethane	ND	U	2	ug/L	01/26/04	caox
	Vinyl chloride	ND	U	1	ug/L	01/26/04	caox
	Bromomethane	ND	U	2	ug/L	01/26/04	caox
	Chloroethane	ND	U	2	ug/L	01/26/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	1	ug/L	01/26/04	caox
	1,1-Dichloroethene	ND	U	1	ug/L	01/26/04	caox
	Acetone	ND	U	50	ug/L	01/26/04	caox
	Methylene chloride	ND	U	2	ug/L	01/26/04	caox
	trans-1,2-Dichloroethene	ND	U	1	ug/L	01/26/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	1	ug/L	01/26/04	caox
	1,1-Dichloroethane	ND	U	1	ug/L	01/26/04	caox
	2,2-Dichloropropane	ND	U	1	ug/L	01/26/04	caox
	cis-1,2-Dichloroethene	ND	U	1	ug/L	01/26/04	caox
	2-Butanone (MEK)	ND	U	10	ug/L	01/26/04	caox
	Bromochloromethane	ND	U	1	ug/L	01/26/04	caox
	Chloroform	ND	U	1	ug/L	01/26/04	caox
	1,1,1-Trichloroethane	ND	U	1	ug/L	01/26/04	caox
	1,1-Dichloropropene	ND	U	1	ug/L	01/26/04	caox
	Carbon tetrachloride	ND	U	1	ug/L	01/26/04	caox
	Benzene	ND	U	1	ug/L	01/26/04	caox
	1,2-Dichloroethane	ND	U	1	ug/L	01/26/04	caox
	Trichloroethene (TCE)	ND	U	1	ug/L	01/26/04	caox
	1,2-Dichloropropane	ND	U	1	ug/L	01/26/04	caox
	Dibromomethane	ND	U	1	ug/L	01/26/04	caox
	Bromodichloromethane	ND	U	1	ug/L	01/26/04	caox
	cis-1,3-Dichloropropene	ND	U	0.5	ug/L	01/26/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	10	ug/L	01/26/04	caox
	Toluene	ND	U	1	ug/L	01/26/04	caox
	trans-1,3-Dichloropropene	ND	U	0.5	ug/L	01/26/04	caox
	1,1,2-Trichloroethane	ND	U	1	ug/L	01/26/04	caox
	Tetrachloroethene	ND	U	1	ug/L	01/26/04	caox
	1,3-Dichloropropane	ND	U	1	ug/L	01/26/04	caox
	2-Hexanone (MNBK)	ND	U	10	ug/L	01/26/04	caox
	Dibromochloromethane	ND	U	1	ug/L	01/26/04	caox
	1,2-Dibromoethane (EDB)	ND	U	1	ug/L	01/26/04	caox
	Chlorobenzene	ND	U	1	ug/L	01/26/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	1	ug/L	01/26/04	caox
	Ethylbenzene	ND	U	1	ug/L	01/26/04	caox
	m&p-Xylenes	ND	U	1	ug/L	01/26/04	caox
	o-Xylene	ND	U	1	ug/L	01/26/04	caox
	Styrene	ND	U	1	ug/L	01/26/04	caox
	Bromoform	ND	U	1	ug/L	01/26/04	caox
	Isopropylbenzene	ND	U	1	ug/L	01/26/04	caox
	Bromobenzene	ND	U	1	ug/L	01/26/04	caox
	1,1,2,2-Tetrachloroethane	ND	U	1	ug/L	01/26/04	caox
	1,2,3-Trichloropropane	ND	U	3	ug/L	01/26/04	caox
	n-Propylbenzene	ND	U	1	ug/L	01/26/04	caox
	2-Chlorotoluene	ND	U	1	ug/L	01/26/04	caox

In Description = Dry Wgt.

Page 8



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: Trip Blank
 Date Sampled.....: 01/19/2004
 Time Sampled.....: 09:00
 Sample Matrix.....: Lab Water

Laboratory Sample ID: 212668-3
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	1,3,5-Trimethylbenzene	ND	U	1	ug/L	01/26/04	caox
	4-Chlorotoluene	ND	U	1	ug/L	01/26/04	caox
	tert-Butylbenzene	ND	U	1	ug/L	01/26/04	caox
	1,2,4-Trimethylbenzene	ND	U	1	ug/L	01/26/04	caox
	sec-Butylbenzene	ND	U	1	ug/L	01/26/04	caox
	1,3-Dichlorobenzene	ND	U	1	ug/L	01/26/04	caox
	p-Isopropyltoluene	ND	U	1	ug/L	01/26/04	caox
	1,4-Dichlorobenzene	ND	U	1	ug/L	01/26/04	caox
	n-Butylbenzene	ND	U	1	ug/L	01/26/04	caox
	1,2-Dichlorobenzene	ND	U	1	ug/L	01/26/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5	ug/L	01/26/04	caox
	1,2,4-Trichlorobenzene	ND	U	1	ug/L	01/26/04	caox
	Hexachlorobutadiene	ND	U	0.6	ug/L	01/26/04	caox
	Naphthalene	ND	U	5	ug/L	01/26/04	caox
	1,2,3-Trichlorobenzene	ND	U	1	ug/L	01/26/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP-FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

Job Number: 212668

LABORATORY TEST RESULTS

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: SED-1
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 14:00
 Sample Matrix.....: Soil

Laboratory Sample ID: 212668-4
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
% Solids 160.3	% Solids	70.8		0.1	%	01/22/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	12.8		4.69	mg/Kg	01/23/04	baf

In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rongeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: SED-2
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 14:10
 Sample Matrix.....: Soil

Laboratory Sample ID: 212668-5
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
% Solids 160.3	% Solids	76.5		0.1	%	01/22/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	127		4.34	mg/Kg	01/23/04	baf

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: Trans-1
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 13:29
 Sample Matrix.....: Soil

Laboratory Sample ID: 212668-6
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
% Solids 160.3	% Solids	66.0		0.1	%	01/22/04	grb
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total*	95.4		4.99	mg/Kg	01/23/04	baf

*n Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY CHRONICLE

Job Number: 212668

Date: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Lab ID	Client ID	Date Recvd	Sample Date	Method	Description	Run#	Batch#	Prep BT	#(S)	Date/Time Analyzed	Dilution
Lab ID: 212668-1	Client ID: MW-2	Date Recvd: 01/22/2004	Sample Date: 01/21/2004	SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23241		01/22/2004 2047	
				SW846 3510C	Extraction Sep. Funnel (Diesel)	1	23241			01/22/2004 0000	
				SW846 3510C	Extraction Sep. Funnel (PCBs)	1	23242			01/22/2004 0000	
				SW846 8082A	PCB Analysis	1	23275	23242		01/22/2004 1722	
				SW846 8260B	Volatile Organics	1	23358			01/26/2004 1812	10
Lab ID: 212668-2	Client ID: MW-1	Date Recvd: 01/22/2004	Sample Date: 01/21/2004	SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23241		01/22/2004 2127	
				SW846 3510C	Extraction Sep. Funnel (Diesel)	1	23241			01/22/2004 0000	
				SW846 8260B	Volatile Organics	1	23358			01/26/2004 1843	10
Lab ID: 212668-3	Client ID: Trip Blank	Date Recvd: 01/22/2004	Sample Date: 01/19/2004	SW846 8260B	Volatile Organics	1	23358			01/26/2004 1915	1
Lab ID: 212668-4	Client ID: SED-1	Date Recvd: 01/22/2004	Sample Date: 01/21/2004	% Solids 160.3	% Solids Determination	1	23252			01/22/2004 0000	
				SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23243		01/23/2004 0010	
				SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	23243			01/22/2004 0000	
Lab ID: 212668-5	Client ID: SED-2	Date Recvd: 01/22/2004	Sample Date: 01/21/2004	% Solids 160.3	% Solids Determination	1	23252			01/22/2004 0000	
				SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23243		01/23/2004 0132	
				SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	23243			01/22/2004 0000	
Lab ID: 212668-6	Client ID: Trans-1	Date Recvd: 01/22/2004	Sample Date: 01/21/2004	% Solids 160.3	% Solids Determination	1	23252			01/22/2004 0000	
				SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23243		01/23/2004 0212	
				SW846 3550B	Extraction Ultrasonic (Diesel) Soil	1	23243			01/22/2004 0000	

SURROGATE RECOVERIES REPORT

Job Number.: 212668

Report Date.: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: Diesel Range Organics (DRO)
Batch(s).....: 23298

Method Code...: 8015D
Test Matrix...: Water

Prep Batch....: 23241
Equipment Code:

Lab ID	DT	Sample ID	Date	OTERPH
212668- 1		MW-2	01/22/2004	55.9
212668- 2		MW-1	01/22/2004	62.9

Test	Test Description	Limits
OTERPH	o-Terphenyl (surr)	40.0 - 140.

Method.....: Diesel Range Organics (DRO)
Batch(s).....: 23298

Method Code...: 8015D
Test Matrix...: Water

Prep Batch....: 23243
Equipment Code:

Lab ID	DT	Sample ID	Date	OTERPH
212668- 4		SED-1	01/23/2004	58.5
212668- 5		SED-2	01/23/2004	56.0
212668- 6		Trans-1	01/23/2004	62.8

Test	Test Description	Limits
OTERPH	o-Terphenyl (surr)	40.0 - 140.

SURROGATE RECOVERIES REPORT

Job Number.: 212668

Report Date.: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: PCB Analysis
Batch(s).....: 23275

Method Code...: 8082DC
Test Matrix...: Water

Prep Batch.....: 23242
Equipment Code:

Lab ID	DT	Sample ID	Date	DCB	TCX
212668- 1		MW-2	01/22/2004	46.2	72.0

Test	Test Description	Limits
DCB	Decachlorobiphenyl (surr)	30.0 - 150.
TCX	Tetrachloro-m-xylene (surr)	30.0 - 150.

SURROGATE RECOVERIES REPORT

Job Number.: 212668

Report Date.: 01/28/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: Volatile Organics
Batch(s).....: 23358

Method Code...: 8260
Test Matrix...: Water

Prep Batch.....:
Equipment Code: VHPMS1

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
212668- 1		MW-2	01/26/2004	92.2	87.6	94.1	92.3
212668- 2		MW-1	01/26/2004	95.8	91.6	95.3	92.2
212668- 3		Trip Blank	01/26/2004	95.3	89.6	96.9	92.0

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	70.0 - 130.
BRFLBE	4-Bromofluorobenzene (surr)	70.0 - 130.
DBRFLM	Dibromofluoromethane (surr)	70.0 - 130.
TOLD8	Toluene-d8 (surr)	70.0 - 130.

Job Number.: 212668 Location.: 57345 Check List Number.: 1 Description.:
 Customer Job ID.....: Job Check List Date.: Date of the Report...: 01/22/2004
 Project Number.: 20002021 Project Description.: B360 Project Manager.....: amf
 Customer.....: Tighe and Bond, Inc. Contact.: Tom Rigley

Questions ? (Y/N) Comments

Chain-of-Custody Present?..... Y
 ...If "yes", completed properly?..... Y
 Custody seal on shipping container?..... N
 ...If "yes", custody seal intact?.....
 Custody seals on sample containers?..... N
 ...If "yes", custody seal intact?.....
 Samples iced?..... Y
 Temperature of cooler acceptable? (4 deg C +/- 2). Y
 ...Temperature at receipt_____ 4.5C
 Samples received intact (good condition)?..... Y
 Volatile samples acceptable? (no headspace)..... Y
 Is a Trip Blank required?..... Y
 Was a Trip Blank provided?..... Y
 Correct containers used?..... Y
 Adequate sample volume provided?..... Y
 Samples preserved correctly?..... Y
 Samples received within holding-time?..... Y
 Agreement between COC and sample labels?..... Y
 Comments.....
 If samples were shipped was there an air bill #?.. Y FedEx 844362011989
 Sample Custodian Signature/Date..... MJB 1/22/04 



STL

Tom Rigley
Tighe & Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

STL Westfield
53 Southampton Road
Westfield, MA 01085

Tel: 413 572 4000 Fax: 413 572 3707
www.stl-inc.com

February 3, 2004

Report Number: 212668

REVISED

Dear Tom Rigley,

The revised report for the above referenced project is now complete. This revision provides lower reporting limits for method 8260 for samples MW-2 and MW-1.

If you should have any questions regarding this report or any part of our service, please do not hesitate to contact us. Thank you for selecting STL Westfield, and we look forward to working with you on future projects.

Steven C. Hartmann
Laboratory Director
STL Westfield

Technical Review: SF 2/3/04

Total number of pages in this report: 8

ANALYTICAL REPORT

JOB NUMBER: 212668

Prepared For:

Tighe and Bond, Inc.
PO Box 621
25 Village Square
Bellows Falls, VT 05101

Attention: Tom Rigley

Date: 02/03/2004



Signature

2/3/04

Date

Name: Anne M. Fuller

Title: Project Manager

E-Mail: afuller@stl-inc.com

Westfield Executive Park
53 Southampton Road
Westfield, MA 01085

PHONE: 413-572-4000
FAX...: 413-572-3707

SEVERN
TRENT

STL

MADEP MA014
RIDOH57
CTDPH 0494
VT DECWSD

NELAP FL E87912 TOX
NY DOH 10843
NH DES 253901-A
NELAP NY10843



STL Westfield
53 Southampton Rd.
Westfield, MA 01085
Tel: (413) 572-4000
Fax: (413) 572-3707

STL Billerica
149 Rangeway Rd.
N. Billerica, MA 01862
Tel: (978) 667-1400
Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 11:06
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-1
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 3510C	Separatory Funnel Liq/Liq Extraction	Complete				01/22/04	cdt
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total	0.19		0.10	mg/L	01/22/04	baf
SW846 8082A	PCB Analysis						
	Aroclor 1016	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1221	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1232	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1242	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1248	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1254	ND	U	0.30	ug/L	01/22/04	baf
	Aroclor 1260	ND	U	0.30	ug/L	01/22/04	baf
SW846 8260B	Volatile Organics						
	Chloromethane	ND	U	2	ug/L	02/02/04	caox
	Vinyl chloride	ND	U	1	ug/L	02/02/04	caox
	Bromomethane	ND	U	2	ug/L	02/02/04	caox
	Chloroethane	ND	U	2	ug/L	02/02/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	Acetone	ND	U	50	ug/L	02/02/04	caox
	Methylene chloride	ND	U	2	ug/L	02/02/04	caox
	trans-1,2-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloroethane	ND	U	1	ug/L	02/02/04	caox
	2,2-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	cis-1,2-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	2-Butanone (MEK)	ND	U	10	ug/L	02/02/04	caox
	Bromochloromethane	ND	U	1	ug/L	02/02/04	caox
	Chloroform	ND	U	1	ug/L	02/02/04	caox
	1,1,1-Trichloroethane	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloropropene	ND	U	1	ug/L	02/02/04	caox
	Carbon tetrachloride	ND	U	1	ug/L	02/02/04	caox
	Benzene	0.6	J	1	ug/L	02/02/04	caox
	1,2-Dichloroethane	ND	U	1	ug/L	02/02/04	caox
	Trichloroethene (TCE)	ND	U	1	ug/L	02/02/04	caox
	1,2-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	Dibromomethane	ND	U	1	ug/L	02/02/04	caox
	Bromodichloromethane	ND	U	1	ug/L	02/02/04	caox
	cis-1,3-Dichloropropene	ND	U	0.5	ug/L	02/02/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	10	ug/L	02/02/04	caox
	Toluene	ND	U	1	ug/L	02/02/04	caox
	trans-1,3-Dichloropropene	ND	U	0.5	ug/L	02/02/04	caox
	1,1,2-Trichloroethane	ND	U	1	ug/L	02/02/04	caox
	Tetrachloroethene	ND	U	1	ug/L	02/02/04	caox
	1,3-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	2-Hexanone (MNBK)	ND	U	10	ug/L	02/02/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-2
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 11:06
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-1
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Dibromochloromethane	ND	U	1	ug/L	02/02/04	caox
	1,2-Dibromoethane (EDB)	ND	U	1	ug/L	02/02/04	caox
	Chlorobenzene	ND	U	1	ug/L	02/02/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	1	ug/L	02/02/04	caox
	Ethylbenzene	ND	U	1	ug/L	02/02/04	caox
	m&p-Xylenes	ND	U	1	ug/L	02/02/04	caox
	o-Xylene	ND	U	1	ug/L	02/02/04	caox
	Styrene	ND	U	1	ug/L	02/02/04	caox
	Bromoform	ND	U	1	ug/L	02/02/04	caox
	Isopropylbenzene	ND	U	1	ug/L	02/02/04	caox
	Bromobenzene	ND	U	1	ug/L	02/02/04	caox
	1,1,2,2-Tetrachloroethane	ND	U	1	ug/L	02/02/04	caox
	1,2,3-Trichloropropane	ND	U	3	ug/L	02/02/04	caox
	n-Propylbenzene	ND	U	1	ug/L	02/02/04	caox
	2-Chlorotoluene	ND	U	1	ug/L	02/02/04	caox
	1,3,5-Trimethylbenzene	ND	U	1	ug/L	02/02/04	caox
	4-Chlorotoluene	ND	U	1	ug/L	02/02/04	caox
	tert-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,2,4-Trimethylbenzene	ND	U	1	ug/L	02/02/04	caox
	sec-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,3-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	p-Isopropyltoluene	ND	U	1	ug/L	02/02/04	caox
	1,4-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	n-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,2-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5	ug/L	02/02/04	caox
	1,2,4-Trichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	Hexachlorobutadiene	ND	U	0.6	ug/L	02/02/04	caox
	Naphthalene	ND	U	5	ug/L	02/02/04	caox
	1,2,3-Trichlorobenzene	ND	U	1	ug/L	02/02/04	caox

In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-1
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 13:11
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-2
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
SW846 3510C	Separatory Funnel Liq/Liq Extraction	Complete				01/22/04	cdt
SW846 8015B(M)	Diesel Range Organics (DRO) Diesel Range Organics (DRO), total	ND	U	0.10	mg/L	01/22/04	baf
SW846 8260B	Volatile Organics	ND	U	2	ug/L	02/02/04	caox
	Chloromethane	ND	U	1	ug/L	02/02/04	caox
	Vinyl chloride	ND	U	2	ug/L	02/02/04	caox
	Bromomethane	ND	U	2	ug/L	02/02/04	caox
	Chloroethane	ND	U	2	ug/L	02/02/04	caox
	Trichlorofluoromethane (Freon 11)	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	Acetone	ND	U	50	ug/L	02/02/04	caox
	Methylene chloride	ND	U	2	ug/L	02/02/04	caox
	trans-1,2-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	Methyl-tert-butyl-ether (MTBE)	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloroethane	ND	U	1	ug/L	02/02/04	caox
	2,2-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	cis-1,2-Dichloroethene	ND	U	1	ug/L	02/02/04	caox
	2-Butanone (MEK)	ND	U	10	ug/L	02/02/04	caox
	Bromochloromethane	ND	U	1	ug/L	02/02/04	caox
	Chloroform	ND	U	1	ug/L	02/02/04	caox
	1,1,1-Trichloroethane	ND	U	1	ug/L	02/02/04	caox
	1,1-Dichloropropene	ND	U	1	ug/L	02/02/04	caox
	Carbon tetrachloride	ND	U	1	ug/L	02/02/04	caox
	Benzene	ND	U	1	ug/L	02/02/04	caox
	1,2-Dichloroethane	ND	U	1	ug/L	02/02/04	caox
	Trichloroethene (TCE)	ND	U	1	ug/L	02/02/04	caox
	1,2-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	Dibromomethane	ND	U	1	ug/L	02/02/04	caox
	Bromodichloromethane	ND	U	1	ug/L	02/02/04	caox
	cis-1,3-Dichloropropene	ND	U	0.5	ug/L	02/02/04	caox
	4-Methyl-2-pentanone (MIBK)	ND	U	10	ug/L	02/02/04	caox
	Toluene	ND	U	1	ug/L	02/02/04	caox
	trans-1,3-Dichloropropene	ND	U	0.5	ug/L	02/02/04	caox
	1,1,2-Trichloroethane	ND	U	1	ug/L	02/02/04	caox
	Tetrachloroethene	ND	U	1	ug/L	02/02/04	caox
	1,3-Dichloropropane	ND	U	1	ug/L	02/02/04	caox
	2-Hexanone (MNBK)	ND	U	10	ug/L	02/02/04	caox
	Dibromochloromethane	ND	U	1	ug/L	02/02/04	caox
	1,2-Dibromoethane (EDB)	ND	U	1	ug/L	02/02/04	caox
	Chlorobenzene	ND	U	1	ug/L	02/02/04	caox
	1,1,1,2-Tetrachloroethane	ND	U	1	ug/L	02/02/04	caox
	Ethylbenzene	ND	U	1	ug/L	02/02/04	caox
	m&p-Xylenes	ND	U	1	ug/L	02/02/04	caox
	o-Xylene	ND	U	1	ug/L	02/02/04	caox
	Styrene	ND	U	1	ug/L	02/02/04	caox
	Bromoform	ND	U	1	ug/L	02/02/04	caox

* In Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY TEST RESULTS

Job Number: 212668

Date: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Customer Sample ID: MW-1
 Date Sampled.....: 01/21/2004
 Time Sampled.....: 13:11
 Sample Matrix.....: Water

Laboratory Sample ID: 212668-2
 Date Received.....: 01/22/2004
 Time Received.....: 09:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	REPORTING LIMIT	UNITS	DATE	TECH
	Isopropylbenzene	ND	U	1	ug/L	02/02/04	caox
	Bromobenzene	ND	U	1	ug/L	02/02/04	caox
	1,1,2,2-Tetrachloroethane	ND	U	1	ug/L	02/02/04	caox
	1,2,3-Trichloropropane	ND	U	3	ug/L	02/02/04	caox
	n-Propylbenzene	ND	U	1	ug/L	02/02/04	caox
	2-Chlorotoluene	ND	U	1	ug/L	02/02/04	caox
	1,3,5-Trimethylbenzene	ND	U	1	ug/L	02/02/04	caox
	4-Chlorotoluene	ND	U	1	ug/L	02/02/04	caox
	tert-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,2,4-Trimethylbenzene	ND	U	1	ug/L	02/02/04	caox
	sec-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,3-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	p-Isopropyltoluene	ND	U	1	ug/L	02/02/04	caox
	1,4-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	n-Butylbenzene	ND	U	1	ug/L	02/02/04	caox
	1,2-Dichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	1,2-Dibromo-3-chloropropane (DBCP)	ND	U	5	ug/L	02/02/04	caox
	1,2,4-Trichlorobenzene	ND	U	1	ug/L	02/02/04	caox
	Hexachlorobutadiene	ND	U	0.6	ug/L	02/02/04	caox
	Naphthalene	ND	U	5	ug/L	02/02/04	caox
	1,2,3-Trichlorobenzene	ND	U	1	ug/L	02/02/04	caox

n Description = Dry Wgt.



MADEP MA014
 RIDOH57
 CTDPH 0494
 VT DECWSD

NELAP FL E87912 TOX
 NY DOH 10843
 NH DES 253901-A
 NELAP NY10843



STL Westfield
 53 Southampton Rd.
 Westfield, MA 01085
 Tel: (413) 572-4000
 Fax: (413) 572-3707

STL Billerica
 149 Rangeway Rd.
 N. Billerica, MA 01862
 Tel: (978) 667-1400
 Fax: (978) 667-7871

LABORATORY CHRONICLE

Job Number: 212668

Date: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Lab ID:	Client ID:	Date Recvd:	Sample Date:				
METHOD	DESCRIPTION	RUN#	BATCH#	PREP BT	#(S)	DATE/TIME ANALYZED	DILUTION
212668-1	MW-2	01/22/2004	01/21/2004				
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23241		01/22/2004 2047	
SW846 3510C	Extraction Sep. Funnel (Diesel)	1	23241			01/22/2004 0000	
SW846 3510C	Extraction Sep. Funnel (PCBs)	1	23242			01/22/2004 0000	
SW846 8082A	PCB Analysis	1	23275	23242		01/22/2004 1722	
SW846 8260B	Volatile Organics	1	23618			02/02/2004 1232	1
212668-2	MW-1	01/22/2004	01/21/2004				
SW846 8015B(M)	Diesel Range Organics (DRO)	1	23298	23241		01/22/2004 2127	
SW846 3510C	Extraction Sep. Funnel (Diesel)	1	23241			01/22/2004 0000	
SW846 8260B	Volatile Organics	1	23618			02/02/2004 1259	1

SURROGATE RECOVERIES REPORT

Job Number.: 212668

Report Date.: 02/03/2004

CUSTOMER: Tighe and Bond, Inc.

PROJECT: B360

ATTN: Tom Rigley

Method.....: Volatile Organics
Batch(s).....: 23358 23618

Method Code...: 8260
Test Matrix...: Water

Prep Batch....:
Equipment Code: VHPMS1

Lab ID	DT	Sample ID	Date	12DCED	BRFLBE	DBRFLM	TOLD8
212668-	1	MW-2	02/02/2004	73.3	93.5	84.9	92.5
212668-	2	MW-1	02/02/2004	72.8	93.5	86.0	92.7
212668-	3	Trip Blank	01/26/2004	95.3	89.6	96.9	92.0

Test	Test Description	Limits
12DCED	1,2-Dichloroethane-d4 (surr)	70.0 - 130.
BRFLBE	4-Bromofluorobenzene (surr)	70.0 - 130.
DBRFLM	Dibromofluoromethane (surr)	70.0 - 130.
TOLD8	Toluene-d8 (surr)	70.0 - 130.



State of Vermont

Department of Fish and Wildlife
Department of Forests, Parks and Recreation
Department of Environmental Conservation
State Geologist
RELAY SERVICE FOR THE HEARING IMPAIRED
1-800-253-0191 TDD>Voice
1-800-253-0195 Voice>TDD

AGENCY OF NATURAL RESOURCES
Department of Environmental Conservation
Management and Prevention Section
Waste Management Division
103 South Main Street/West Office Building
Waterbury, Vermont 05671-0404
(802) 241-3888
FAX: (802) 241-3296
www.anr.state.vt.us/dec/wmd.htm

December 5, 2003

Mr. Charles Brendese, Facility Manager
U.S. Tsubaki, Inc.
222 Bowen Road
Bennington, Vermont 05201

RE: Pending Closure of the U.S. Tsubaki, Inc. Plant in Bennington, Vermont
Vermont Generator ID No. S-02-02-066 US EPA ID No. VTD 082 275 959

Dear Mr. Brendese:

Recently, the Vermont Agency of Natural Resources, Waste Management Division received a report of the pending closure of the U.S. Tsubaki, Inc. plant in Bennington, Vermont. Consequently, the purpose of this letter is to remind you of the Vermont Hazardous Waste Management Regulations' (VHWMR) requirements for closure of hazardous waste generator facilities. Section 7-309(c) of the regulations reads as follows:

7-309 GENERAL MANAGEMENT STANDARDS FOR SMALL AND LARGE QUANTITY GENERATORS

(c) Closure

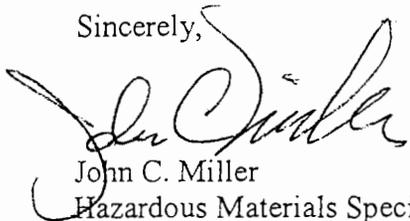
- (1) A generator who no longer generates or manages hazardous waste at a site must close the site in a manner that:
(A) Minimizes the need for further maintenance;
(B) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the groundwater or surface waters or to the atmosphere; and
(C) Complies with the closure requirements of this subchapter including but not limited to the requirements of 40 CFR Sections 265.197, 265.228, 265.258, 265.280, 265.310, 265.351, 265.381, and 265.404.
(2) A generator who no longer generates or manages hazardous waste at a site shall remove all hazardous waste to a designated facility. Remaining containers, tanks, liners, bases, materials, equipment, structures, soil and debris contaminated with hazardous waste or hazardous waste residues shall be decontaminated or disposed of at a designated facility.
(3) A generator shall provide written notice to the Secretary prior to closure and shall submit to the Secretary, within 90 days of completion of closure, certification that closure was completed in accordance with the provisions of subsections (1) and (2) above. This certification shall be made by the generator and the Secretary may require certification by an independent professional engineer licensed in Vermont.

Mr. Charles Brendese, U.S. Tsubaki, Inc.
RE: Closure of plant in Bennington, Vermont

December 5, 2003
Page 2

Enclosed with this letter is a copy of a draft guidance document that has been prepared to help hazardous waste generators adequately close their facilities. If you have any questions about this letter or other hazardous waste management issues, please feel free to contact me by mail at the address given above, by telephone at 241-3487 or by e-mail at john.miller@anr.state.vt.us.

Sincerely,



John C. Miller
Hazardous Materials Specialist

Encl: Guidance for Approval of Closure Certifications (Revised: DRAFT November 2003)