# PROPOSAL FOR REMEDIAL ACTION

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# The Laundry Basket

300 South Main Street Luck, Wisconsin

January 2011

Prepared For:

**Ms. Lois Baldwin** 517 4<sup>th</sup> Street Luck, Wisconsin 54853

Prepared By:

**BT SQUARED, Inc.** 2830 Dairy Drive Madison, Wisconsin 53718

**BT SQUARED Proposal #P4999** 



SMART SIMPLE SOLUTIONS



2830 Dairy Drive Madison, WI 53718

> p 608.224.2830 f 608.224.2839

January 13, 2011

Ms. Lois Baldwin 517 4<sup>th</sup> Street Luck, WI 54853

#### SUBJECT: Proposal for Remedial Action The Laundry Basket - 300 South Main Street, Luck, Wisconsin WDNR BRRTS #02-49-544893 BT Squared Proposal #P4999

Dear Ms. Baldwin:

Thank you for giving BT Squared, Inc., the opportunity to provide a proposal for environmental services for your former dry cleaner site located at 300 South Main Street in Luck. We are very familiar with the Dry Cleaner Environmental Response Fund Program (DERF) and have thoroughly reviewed the specifics of this site. BT Squared has significant site investigation and remediation experience, including other DERF projects in site investigation and remediation phase.

BT Squared understands the site issues and we have designed a scope of work to address the area of highest soil concentrations beneath and around the former dry cleaner facility. Our process for addressing the contamination is outlined in detail in the proposal. In summary, we are proposing to remediate soil contamination by installing a soil vapor extraction (SVE) system with a monitoring program designed to evaluate the natural attenuation of chlorinated solvents in groundwater. Due to site soil conditions, we believe that SVE is the most cost-effective remediation strategy and will lead to an efficient closure of this case.

In addition to SVE, our proposal includes:

- Monitoring groundwater contamination to assess effects of mass removal and plume stability cleanup activities
- Submittal of a case closure request
- Abandonment of all site monitoring wells

Our estimated cost to complete this work is \$163,545. This estimate includes all remediation costs including SVE pilot testing, SVE system installation, eight groundwater monitoring events, case closure reporting, and well abandonment. The DERF fund lists items such as claim preparation, travel, meals and lodging as non-reimbursable. We estimate the non-reimbursable portion of this budget to be approximately \$32,442.

Ms. Lois Baldwin January 13, 2011 Page 2

We look forward to working with you to bring the case to closure in a timely and cost-effective manner. Please feel free to contact us at 608.224.2830 with any questions or concerns. Thank you for your time and consideration.

Sincerely, BT Squared, Inc.

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Tom Karwoski, PG Project Manager

Enclosure: Proposal for Remedial Action

cc: Mr. Phil Richards, WDNR

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Mark Tusler, PE Principal, Senior Engineer

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# **ATTACHMENTS**

- B DERF Site Remediation Cost Summary
- C Work Authorization No. 1, Terms & Conditions, Schedule of Charges
- D Certificate of Insurance

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# CERTIFICATION

I, Mark Tusler, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with the requirements of ch. A-E4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E8, Wis. Adm. Code; and that to the best of my knowledge all information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code.

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Signature

Senie Engineer E26641 Title and PE Number



# **1.0 INTRODUCTION**

BT Squared, Inc., appreciates the opportunity to provide a remedial action proposal for your site located at 300 South Main Street in Luck, Wisconsin. Our proposal includes a remedial action options analysis and remedial action plan for contaminated soil and groundwater.

# 2.0 BT SQUARED QUALIFICATIONS

## 2.1 Representative Experience

BT Squared has conducted hundreds of investigations and site remediations across the United States, focusing primarily in Wisconsin. Each project involved assessment and removal of soil, groundwater, and air contaminants such as tetrachloroethylene (PCE) or other contaminants. Our projects have ranged from dry cleaning facilities to industrial sites and petroleum storage areas. BT Squared is currently working on several Dry Cleaner Environmental Response Fund Program (DERF) investigations and remediation projects in Wisconsin.

# 2.2 Project Team

We have assembled a team that has the technical and regulatory expertise to meet your objectives. In addition, we will draw upon the expertise of additional BT Squared scientists and engineers as needed to complete the project in an efficient and cost-effective manner. The project team will work with you to provide effective agency interaction, excellent service, and high-quality work. Individual team member experience is listed below. Resumes for project team members are included in **Attachment A**.



Tom Karwoski, PG, will serve as the Project Manager for this project. Tom will direct the site remediation effort and serve as the point-of-contact for the client and the Wisconsin Department of Natural Resources (WDNR). Tom has worked as a hydrogeologist and project manager on a wide variety of site investigation and remediation projects, including other chlorinated solvent and petroleum release sites. His areas of expertise include site investigations, soil excavations, groundwater monitoring, and environmental assessments.



Mark Tusler, PE, will serve as the Senior Engineer and Quality Assurance Reviewer for this project. Mark has over 25 years of experience and has applied his combined background in civil and environmental engineering with hydrogeology to develop integrated project solutions from the investigation phase through design and construction. His projects have included hydrogeologic investigation and remedial action for petroleum, solvent, metals, pesticides, and fertilizer impacted properties; construction compliance evaluation; and water quality evaluation.



**Rick Joslin** will serve as **Project Hydrogeologist** for this project. Rick has extensive experience with soil excavation, groundwater sampling, and well abandonment. Rick's experience includes sites with chlorinated hydrocarbons (such as PCE) and petroleum contaminants.

# 3.0 PROJECT UNDERSTANDING AND SITE BACKGROUND

## 3.1 Introduction

In accordance with your December 9, 2010 Request for Proposal letter, BT Squared has conducted a remedial action options analysis to evaluate remedial alternatives for soil contamination, to identify a preferred remedial action, and to provide a detailed scope of work and cost analysis associated with that proposed action.

## 3.2 Site History

The subject site is listed under the WDNR Bureau of Remediation and Redevelopment Tracking System (BRRTS) activity number 02-49-544893. The site, which is tracked by the WDNR as "The Laundry Basket," is located at 300 South Main Street in Luck, Wisconsin. The site, which was a former gas station and dry cleaning facility, had two leaded gasoline underground storage tanks removed in 1973. Dry cleaning equipment was also removed from the site in 2009. Conditional closure for the petroleum release was received on January 20, 2010.

# 3.3 Site Geology and Hydrogeology

Soil underlying the site includes a reddish brown sand, silty sand, and clay. Cambrian sandstone bedrock occurs at approximately 100 feet, and the depth to groundwater is approximately 6 to 7 feet. Groundwater below the site flows to the west-northwest and to the south.

The average linear groundwater flow rate is approximately 13 feet per year (the hydraulic conductivity for the site is ranged from  $3.2 \times 10^{-3}$  cm/s to  $5.25 \times 10^{-3}$  cm/s). Vertical gradients at the site are downward at -0.005 ft/ft.

## 3.4 Results of Previous Investigations

A site investigation for the chlorinated solvent release began in 2006. The Site Investigation Report was submitted to the WDNR in February 2010.

The results of all soil investigation work at the site indicate that PCE soil concentrations do not exceed the site specific non-industrial residual contaminant levels (RCLs). However, PCE concentrations in unsaturated soil exceed the groundwater pathway RCL at borings P-2, SB-2, SB-5, SB-7, SB-9, HA-1, and HA-2.

Six compounds exceeded the Environmental Protection Agency's (EPA's) Target Shallow Soil Vapor Concentrations. PCE vapor concentrations exceeded the EPA Target Shallow Vapor Concentration limit of 8.1 µg/m<sup>3</sup>. The highest upper concentrations were from samples probes VP-1 and VP-3, located within the former dry cleaner building. PCE vapor concentrations exceeding the EPA limits for shallow soil were also found in VP-1 on the north side of 3<sup>rd</sup> Avenue, and at VP-5 and VP-6 along the south property boundary. These results indicated PCE vapors extend off the former dry cleaner property to the west and to the south.

Concentrations of PCE, trichloroethene (TCE), and cis-1,2-dichloroethene (DCE) were detected in groundwater at concentrations exceeding the NR 140 enforcement standard. These exceedances extend across the property, the intersection of 3<sup>rd</sup> and Main Streets, and onto at least six properties to the north and west.

## 3.5 Potential Receptors

Village drinking water supply wells are located more than 1,000 feet downgradient from the site. There are water and sewer utility lines located directly downgradient from the release. With the shallow groundwater, the backfill for the utility lines presents a possible conduit for groundwater migration. The

vapor intrusion investigation indicated there were EPA Target Shallow Soil Vapor Concentration exceedances beneath the former dry cleaner building and property to the west and south.

# 4.0 EVALUATION OF REMEDIAL OPTIONS

# 4.1 Remedial Action Options Identification

The following remedial options are most commonly applied to address chlorinated volatile organic compounds (CVOCs) such as PCE and TCE in soil and groundwater:

- Install and operate a soil vapor extraction system
- Anaerobic biodegradation by injecting a carbon source into the saturated soil in the areas of highest groundwater contaminant concentrations
- Inject chemical oxidants (permanganate or persulfate) in the areas of highest groundwater contaminant concentrations
- Excavate contaminated soil and transport to a landfill

# 4.2 Remedial Action Options Evaluation

In accordance with NR 722.07, the identified remedial action options are evaluated for technical and economic feasibility. The remedial action option technical feasibility evaluation criteria are:

- Long-term effectiveness
- Short-term effectiveness
- Implementability
- Restoration timeframe

The remedial action option economic feasibility evaluation criteria are:

- Capital costs
- Initial costs, including design and testing costs
- Annual operation and maintenance costs
- Costs associated with potential future liability.

# 4.2.1 Soil Vapor Extraction

Soil vapor extraction (SVE) is well suited for the remediation of the CVOCs in the unsaturated soils beneath the site because of the fairly permeable nature of the silty sands. Also, there were no specific source area "hot spots" identified by the SI. A soil vapor extraction system can be designed to cover a

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large area of the unsaturated soil beneath the site so that any unknown hot spots within that area are covered by the influence of the SVE wells.

### 4.2.2 Anaerobic Bioremediation Through Carbon Source Injection

Due to the tight nature of the clay and silt soil layer at the water table, injection technologies are not technically feasible at this site.

### 4.2.3 Chemical Oxidation

Due to the tight nature of the clay and silt soil layer at the water table, injection technologies are not technically feasible at this site.

### 4.2.4 Soil Excavation and Landfilling

Soil excavation is not technically feasible at this site because no specific hot spot source area was identified during the SI and most of the unsaturated soil impacts appear to be inaccessible to excavation because they are beneath the building.

# 5.0 RECOMMENDED REMEDIAL ACTION OPTION

Based on overall technical and economic feasibility, a site remedy consisting of SVE and monitored natural attenuation (MNA) is recommended for this property. Four quarterly rounds of groundwater sampling followed by four semiannual rounds of groundwater sampling and analysis are also included to evaluate the effects of natural attenuation. We believe that the proposed remedial actions will remove contaminant source material and effectively reduce impacts to underlying groundwater. The groundwater monitoring program will serve to document plume stability. These source removal and monitoring actions are consistent with requirements for case closure under NR 726. Cost details for this proposed option are included in **Attachment B**.

## 5.1 Project Scope

## 5.1.1 Task 1 – Soil Vapor Extraction System Pilot Testing and Well Installation

To demonstrate this option and to size the SVE blower and emission rates, one SVE well will be installed near monitoring well MW-5. A 1 horsepower (Hp) Rotron blower will be used to provide vacuum at the well. The test will be run for approximately four hours. Flow rate and air samples from the system will be

collected near the beginning and end of the test and analyzed by National Institute for Occupational Safety and Health (NIOSH) Method 1500/1501 for estimating volatile organic compound (VOC) emission rates. In addition, vacuum readings will be measured at wells MW-1 and MW-5 to estimate the SVE well's radius-of-influence. Results and recommendations concerning pilot test, well installation, and SVE blower sizing will be submitted to the WDNR for review.

# 5.1.2 Task 2 – Soil Vapor Extraction System Installation

Following WDNR approval of the pilot test results and recommendations, we will construct an SVE system. We believe that the system will consist of the pilot test well, and four additional SVE wells installed around the perimeter of the buildings. The locations of the wells will be in the vicinity of boring HA-2 (outside of the building), MW-5, MW-2, and MW-1. The vacuum for the SVE system will likely be provided by a 5 Hp regenerative blower, which will be installed in the building. SVE exhaust will be discharged through a vent installed through the building wall. In accordance with NR 724.15, a Construction Documentation Report will be prepared following the excavation. The report will include:

- Pertinent as-built maps and drawings
- Summary of the remedial action and certification that it was carried out in accordance with approved plans
- Explanation of any minor changes to the design
- Brief description of applicable health and environment regulations
- Documentation of soil disposal

# 5.1.3 Task 3 – Operation and Monitoring

Following the start-up of the SVE system, daily air samples will be collected for the first three days, weekly for the next three weeks, and monthly after that. Air samples and airflow rates will be determined and emission rates (pounds per day) will be calculated. Initially, and after six months, vacuum levels and air samples will be collected from each SVE point to evaluate system performance. We plan to operate the SVE system for two years.

Following the start-up of the SVE system, we will collect the first of four quarterly rounds of groundwater samples. The first four rounds of monitoring will include VOCs and MNA parameters. The following four semiannual rounds will also include VOCs and select MNA parameters. A total of 20 monitoring wells will be included in each of the sampling rounds.

# 5.1.4 Task 4 – Progress Reporting

Quarterly NR 724 progress reporting will be initiated within three months of remediation system start-up. The reports will include the following:

- Description of the progress of the remediation system, including:
  - Pounds of contaminant removed
  - Discussion of system operational problems
  - Overall evaluation of the system
  - Recommendations for future activities
- Site map that indicates the location of pertinent equipment
- Tabulated data graphs and figures necessary to portray relevant data and pertinent field measurements
- Laboratory reports
- Completed operation and maintenance form

## 5.1.5 Task 5 – Site Closure Request and Well Abandonment

If the results of eight groundwater sampling events support closure (show stable or reducing contaminant concentrations), we will prepare a site summary and closure request.

Because some concentrations of VOCs will remain in the soil and groundwater, it is likely that the site closure granted by the WDNR will include registration of the site on their Geographic Information System (GIS) database. This database serves as a notification to current and future users of the property that soil and or groundwater impacts remain at the site. The GIS Registry is also an indication to those intending to perform any redevelopment of the property that special handling of specific areas of soil will be necessary. Use of groundwater beneath the site may also be restricted.

The WDNR requires a \$750 fee to review closure requests and \$450 in fees to add soil and groundwater contamination sites to the GIS Registry. These fees are included in our cost proposal, but are not eligible for reimbursement from DERF.

If WDNR approves case closure, we will dismantle the SVE system and abandon the SVE and monitoring wells.

# 6.0 ESTIMATE COST

A detailed cost estimate for each phase of work is attached as required (**Attachment B**). We estimate a total project cost of \$163,545 and that approximately \$131,104 of these costs will be eligible for DERF reimbursement.

# 7.0 ANTICIPATED SCHEDULE

We anticipate the project schedule as follows:

TASK		DURATION
1	SVE pilot testing and well installation	1 week
2	SVE system installation and start-up	5 Weeks
3	Operation and Monitoring (2 years SVE, 3 years MNA)	3 Years
4	Progress reports and closure report	Quarterly - 3 Years
	Approximate Project Duration	3 Years

# 8.0 ASSUMPTIONS

The following is a list of assumptions associated with the scope and/or costs included in this proposal:

- SVE and well locations are accessible for installation and sampling.
- Building foundation and pavement where SVE piping to be installed is less than 4 inches thick.
- Current property owners allow access for SVE system installation and groundwater monitoring.
- Off-site property owners continue to allow access to monitoring wells on their property.
- Scope and costs for all operation, maintenance, and monitoring activities are included for a threeyear duration including three years of groundwater monitoring and two years of SVE system operation.
- Continued operation of the remediation system and monitoring activities may be necessary.

# 9.0 AUTHORIZATION

If this proposal is acceptable to you, please sign and return Work Authorization No. 1 (Attachment C). Our insurance information is included in Attachment D.

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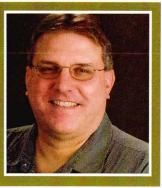
# ATTACHMENT A

BT Squared Resumes

# Thomas J. Karwoski, PG

# Associate / Senior Hydrogeologist

Mr. Karwoski has more than 26 years of experience as a hydrogeologist and project manager. He has designed and managed investigations and remediations at existing and proposed landfills, industrial and military sites, and former under and aboveground tank sites. Tom also has experience in groundwater modeling and environmental assessments. In addition to his environmental consulting experience, Mr. Karwoski was a hydrogeologist with the Wisconsin Department of Natural Resources prior to becoming an environmental consultant.



#### Areas of Expertise

- Solid Waste Management
- Soil and Groundwater Investigation and Remediation
- Chlorinated Solvents Investigation and Remediation
- Petroleum Investigation and Remediation
- Environmental Assessments
- RCRA Corrective Action and Closures
- Multi-State Regulatory Experience

# Registrations/ Certifications

- Professional Geologist, Wisconsin
- Professional Geologist, Illinois

#### Education/Training

- M.S., Geology/Hydrogeology, University of Wisconsin – Milwaukee
- B.S., Geology, University of Wisconsin Milwaukee
- 40-Hour HAZWOPER Training

#### Professional History

- Associate / Senior Hydrogeologist, BT Squared, Inc., 2003 to Present
- Project Manager/Senior Hydrogeologist, MWH (formerly Warzyn Engineering & Montgomery Watson Harza), 1990 to 2003
- Senior Hydrogeologist, Superfund Section - Wisconsin Department of Natural Resources, 1989 to 1990
- Senior Hydrogeologist/ Hydrogeologist, Solid Waste Section – Wisconsin Department of Natural Resources, 1986 to 1989

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#### Soil and Groundwater Investigation and Remediation

- Managed a soil and groundwater investigation and remediation of a fuel oil and polychlorinated biphenyl (PCB)-contaminated site for Associated Milk Producers, Inc., in Coon Valley, Wisconsin. Evaluated remedial options for an 11,000-gallon fuel oil and PCB product LNAPL site.
- Designed a monitored natural attenuation remedy for explosives, volatile organic compounds (VOCs), and metals contaminated groundwater for the Joliet Army Ammunitions Plant in Wilmington, Illinois. The site covered 16,000 acres and included over 200 monitoring wells.
- Performed an investigation of a THF plume and wrote the Remedial Investigation report at Waste Management, Inc.'s, Hagen Farm Landfill Superfund Site Remedial Investigation/ Feasibility Study (RI/FS) in Stoughton, Wisconsin. The investigation included using sampling while drilling techniques and full-scale groundwater pumping tests.
- Conducted a remedial investigation at Waste Management, Inc.'s, Boundary Road Landfill Superfund Site RI/FS in Menomonee Falls, Wisconsin. Also completed the Remedial Investigation report.
- Assisted in the design and performance of a remedial investigation at WMI Muskego Landfill Superfund Site RI/FS in Muskego, Wisconsin. Wrote the Remedial Investigation report.
- Acted as Project Hydrogeologist for several investigation tasks, including a leachate head level assessment, gas to groundwater migration assessment, and a plan modification to reduce the NR 500 and NR 600 monitoring programs at Waste Management, Inc.'s, Omega Hills Landfill in Germantown, Wisconsin.
- Installed groundwater extraction wells to remove pentachlorophenol and mineral spirits from a former wood treatment facility at Wauleco Inc., in Wausau, Wisconsin.
- Designed a soil and groundwater investigation, including a geophysical survey to evaluate refuse limits and extent of contamination at Blackwell Forest Preserve Landfill NPL Site in DuPage County, Illinois.

#### **Chlorinated Sites Remediation**

- Managed the pilot testing of a soil vapor extraction system and cheese whey injections to remediate chlorinated volatile organic contamination in soil and groundwater at a former dry cleaning facility at the Northgate Shopping Center in Madison, Wisconsin.
- Completed the soil and groundwater investigation of a chlorinated volatile organics plume that extended over several city blocks and impacted both glacial soils and fractured dolomite bedrock at a dry cleaning facility in Mauston, Wisconsin.
- Utilized monitored natural attenuation to remediate trichloroethylene in groundwater and soil at SNC Manufacturing Company in Oshkosh, Wisconsin.
- Conducted the investigation of on-site and off-site trichloroethene (TCE) plume. The investigation included sampling while drilling techniques. Also managed the O&M and groundwater monitoring for an air sparge and SVE system at Waste Management, Inc.'s, Byrkit Avenue Business Center in Mishawka, Indiana.
- Implemented a pilot study using hydrogen release compound (HRC) to enhance the biodegradation of chlorinated organics at the former Cedarburg Dry Cleaners in Cedarburg, Wisconsin.

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Hydrogeologist Intern, Hazardous Waste and Water Supply Sections, Wisconsin Department of Natural Resources, 1984 to 1986

# Publications/ Presentations

Use of a 3-D Groundwater Transport Model to Optimize the Design of Groundwater Monitoring Well Arrays for Sanitary Landfills. Karwoski, Thomas J., 1989. Masters Thesis, University of Wisconsin – Milwaukee.

#### Award

Wisconsin Association of Consulting Engineers – Award for Engineering Excellence for the successful design and implementation of an HRC pilot study at a chlorinated solvent site.

## Solid Waste Management

- Designed and implemented a soil and groundwater investigation and alternative geotechnical investigations to prepare a Feasibility Report for two contiguous and a third non-contiguous landfill expansion at WMI Orchard Ridge Landfill in Menomonee Falls, Wisconsin.
- Managed a long-term groundwater monitoring and landfill gas O&M system for a closed landfill. O&M tasks also included the upgrade of a site telemetry system and the investigation and repair of the horizontal gas collection system at Appleton Landfill in Appleton, Wisconsin.
- Performed groundwater quality and leachate head level investigation and assisted in the design and installation of a large-scale groundwater (springwater) cutoff trench at 3M-Guin Landfill in Guin, Alabama.
- Performed a groundwater and geotechnical investigation and assisted in the preparation of a Feasibility Study and Plan of Operation for Superior/Onyx Glacier Ridge Sanitary Landfill Expansion in the Town of Williamstown, Wisconsin.
- Designed and implemented a perimeter soil gas investigation at the closed WMI Brookfield Landfill in Brookfield, Wisconsin. Also managed the design and construction of gas extraction system upgrades at the landfill.
- Designed and implemented a full-scale pumping test and managed the quarterly groundwater monitoring program at Winnebago Reclamation Landfill in Rockford, Illinois.
- Completed Initial Site Report for a proposed landfill expansion and designed groundwater monitoring network and geotechnical testing plan at Waste Management, Inc.'s Pheasant Run RDF in Bristol, Wisconsin.
- Prepared Plan of Operation for landfill expansion at Waste Management, Inc.'s Pheasant Run RDF in Bristol, Wisconsin.
- Managed the design and installation of a leachate and gas recovery well at Fond du Lac County Landfill in Fond du Lac, Wisconsin.

#### **Environmental Assessments**

- Performed a Phase 1 and a Phase 2 Environmental Site Assessment at a commercial laundry facility in Nebraska.
- Completed Phase 1 Environmental Site Assessments at four commercial laundry facilities located in Wisconsin and Nebraska.
- Managed a Phase 2 Environmental Site Assessment at a commercial laundry facility located in Wisconsin.

#### Petroleum Site Investigation and Remediation

 Served as project manager and hydrogeologist for over 12 petroleum storage tank investigations and/or remediation sites. Acquired vast experience with overlapping plumes from off-site sources and overlapping plumes from non-petroleum sources.

#### Groundwater Modeling

- Conducted groundwater flow modeling for extraction well design and location using the FLOWPATH 2-D flow model for Wauleco Inc., in Wausau, Wisconsin, and for Beloit Corporation, a Superfund RI investigation in Rockton, Illinois.
- Performed groundwater modeling to design a groundwater dewatering system for a 40-acre RCRA Corrective Action Management Unit using the VISUAL MODFLOW 3-D flow model for U.S. Steel Garyworks Facility in Gary, Indiana.
- Evaluated contaminant transport distances and decay rates for VOCs and explosives in groundwater using the BIOSCREEN model for the Joliet Army Ammunitions Plant in Wilmington, Illinois.

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### **RCRA Corrective Action and Closures**

- Prepared workplans, implemented closure activities, and received approval for clean closure of three hazardous waste storage units at the Savanna Army Ammunition Plant in Savanna, Illinois.
- Performed groundwater modeling and soil and groundwater testing for the design of a RCRA Corrective Action Management Unit at the US Steel Garyworks Facility in Gary, Indiana.

#### Legal Support

- Provided legal support for a permit application for a commercial landfill expansion in Wisconsin. The permit application report, consisting of the hydrogeologic investigation and engineering design, was contested by a group of local property owners, and the opposition deposed Mr. Karwoski. The deposition and subsequent court hearing covered all aspects of the site investigation, analysis, existing groundwater quality, and potential for future groundwater impacts.
- Assisted in legal proceedings on numerous landfill sites, including preparation and support of administrative orders and involvement in contested case hearings for proposed landfill sites while employed as a hydrogeologist at the Wisconsin Department of Natural Resources in the solid waste program.

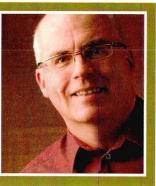
#### Multi-State Regulatory Experience

• Utilized site investigation, remediation, solid waste, and groundwater quality regulations in Wisconsin, Illinois, Indiana, Nebraska, and Alabama.

# Mark Tusler, PE, CEM

# Principal, Environmental Engineer

Mr. Tusler has worked in the environmental field since 1978 and has been an engineering and environmental consultant since 1990. His primary areas of technical expertise include site investigation, emergency response, remediation, regulatory compliance, and managing contaminated soil and groundwater before and after construction has started. Mr. Tusler has managed multiple phases of contaminant remediation and investigations in complex regulatory and geologic settings. Remediation has included solvents, metals, fertilizers, pesticides, and PCBs for commercial, industrial, and governmental clients.



## Areas of Expertise

- Soil and Groundwater Investigation
- Spill Prevention, Control, Stabilization, Containment, and Cleanup
- Project/process definition and prioritization
- Capital project justification assistance and presentations
- Regulatory compliance audits, waste audits, and/or safety audits combined with energy

# Registrations/ Certifications

- Professional Engineer, Wisconsin
- Professional Engineer, Illinois
- Certified Energy Manager

## Education/Training

- M.S., Civil and Environmental Engineering, University of Wisconsin-Madison
- B.S., Civil and Environmental Engineering, University of Wisconsin-Madison
- 40 Hour HAZWOPER Training with current 8-hour refresher

## Professional History

- Principal and Project Manager, BT Squared, Inc., 1991 to Present
- Senior Engineer, Warzyn, Inc., Madison, WI, 1990 to 1991
- Senior Engineer and Hydrogeologist, Wisconsin Department of Natural Resources, Madison, WI, 1978 to 1990

# Professional Affiliations

American Society of Civil Engineers

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Federation of Environmental Technologists

# Sustainability

- Serving on the lead team for Wisconsin Manufacturing Extension Partnership (WMEP) sustainability initiative, serving small to mid-size manufacturing in Wisconsin as part of their next generation manufacturing. The initiative will help these small to mid-sized manufacturers meet the energy efficiency requirements of Wisconsin's Green Energy Jobs Act.
- Coordinated biomass suppliers to provide agricultural biomass as a renewable fuel for a coal-burning power plant in Dane County.
- Evaluated and recommended product substitution for printing inks and healthcare disinfectants for a Wisconsin school and several healthcare facilities.
- Advised company Green Teams in their efforts to reduce, reuse, and recycle company resources.
- Evaluated a company's carbon footprints to provide a baseline and provide recommendations for footprint reduction for commercial facilities in Wisconsin.
- Implemented a Wisconsin commercial company's program to systematically reduce electricity use and achieved a 20% reduction over two years.

#### Spill Response

- Participating as the leading member and/or supporting member of BT Squared's 24/7 spill response team.
- Acted as lead member of a pesticide cleanup for a leaking tote in a semi trailer. Level C protection required for cleanup.
- Oversaw heating oil cleanup when corrosion caused a 10,000-gallon aboveground (AST) to release its contents.
- Coordinated fertilizer cleanup where a 6,000-gallon release occurred from an AST.
- Led investigation of underground propane leak, resulting in explosive levels in homes and buildings.
- Coordinated cleanups for numerous traffic accidents that resulted in the release of petroleum compounds.
- Participated in hard boom deployment exercise to demonstrate compliance with EPA requirements for a large AST facility.

## Wisconsin Department of Transportation

• Acted as project manager for over 75 WisDOT Work Orders for construction oversight, design, investigation, and emergency response projects.

## Soil and Groundwater Investigation and Remediation

- Managed over 100 soil and groundwater investigations in the Midwest for commercial, industrial, and governmental clients.
- Served as project manager and senior engineer for over 45 soil and groundwater remediations including the use of triple phase extraction for combined product, air, and water removal.

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# Mark Tusler, PE, CEM

- Investigated and remediated numerous sites where underground propane leaks had caused explosions.
- Characterized the contamination and developed construction management techniques to allow site redevelopment for the East Moline, Illinois, Brownfields Pilot Project.
- Supervised a staff of hydrogeologists, engineers, and staff scientists responsible for hundreds of investigation and remediation sites.
- Lectured for the University of Wisconsin-Extension on subsurface investigation and remediation.

#### RCRA, CERCLA, and TSCA Regulations

- Served as the community's technical advisor for the Sheboygan River/Harbor Superfund site.
- · Coordinated actions at nine RCRA Corrective Action sites.
- · Coordinated actions at three Superfund sites.
- Evaluated six facilities for their compliance with the RCRA regulations.
- Prepared Remedial Investigation and Feasibility Study reports for three CERCLA sites.
- Audited eight facilities for their PCB management practices and compliance with the TSCA regulations.

#### Environmental Site Assessments

- Performed Phase 1 Environmental Site Assessments for highway construction and property transactions at over 50 facilities, including commercial, industrial, residential, and agricultural properties.
- Completed Phase 2 Environmental Site Assessments to address potential contamination issues including underground storage tanks, potential agrichemical contamination, and potential metals contamination in fill materials at over 60 facilities, including commercial, industrial, residential, and agricultural properties.

#### **Energy and Environmental Services**

- Conducted field monitoring for ventilation rates and performed air quality testing to quantify indoor air quality concerns for 12 industrial and commercial facilities in Wisconsin.
- Designed and implemented air-to-air heat exchanger systems to improve air quality, ventilation, and energy recovery for a Wisconsin commercial facility.
- Designed a tank venting system to prevent worker exposure to vapors from a pesticide tank.
- Evaluated and recommended process changes to eliminate a company's source of hazardous waste.
- Evaluated and recommended product substitution for printing inks and healthcare disinfectants for a Wisconsin school and several healthcare facilities.
- Advised company Green Teams in their efforts to reduce, reuse, and recycle company resources.
- Evaluated a company's carbon footprints to provide a baseline and provide recommendations for footprint reduction for commercial facilities in Wisconsin.
- Conducted solid waste and wastewater audits for companies and made recommendations for waste reduction.
- Implemented a Wisconsin commercial company's program to systematically reduce electricity use and achieved a 20% reduction over two years.
- Conducted sampling and analysis to identify the source of boiler water contamination during the commissioning of a hospital boiler system.

#### HVAC

- Conducted field monitoring for ventilation rates and performed air quality testing to quantify indoor air quality concerns for 12 industrial and commercial facilities in Wisconsin.
- Designed and implemented air-to-air heat exchanger systems to improve air quality, ventilation, and energy recovery for a Wisconsin commercial facility.
- Conducted sampling and analysis to identify the source of boiler water contamination during the commissioning of a hospital boiler system.

#### **Building Envelope**

- Evaluated building envelopes using eQuest to analyze heat loss and the impact of potential retrofits for two commercial facilities in Wisconsin.
- Evaluated fenestration alternatives and their impact on energy use for a Wisconsin commercial facility.

#### Legal Support and Expert Witness

- Provided legal support and deposition related to the appropriateness of a petroleum remediation system. The case was settled prior to trial.
- Provided legal support for case where the contamination from an agricultural coop had affected a downgradient property owner's water supply. The case is still pending
- Provided legal support in reviewing the results of a water quality model for the Lower Fox River. The case was settled prior to trial.
- Provided legal support, deposition, and testimony regarding the appropriateness of Minnesota water quality standards for ammonia. The case went to an administrative hearing where it was settled.



# Richard R. Joslin

# Hydrogeologist

Mr. Joslin has over ten years of experience performing hydrogeologic and geologic evaluations and interpretations, groundwater monitoring, and other related activities. Mr. Joslin also has extensive experience in performing Phase 2 site investigations and remediation. His responsibilities include developing workplans, coordinating and performing fieldwork, providing documentation and oversight activities, and developing investigation and closure reports. Rick has worked on a wide variety of types and sizes of projects in the agrichemical, commercial, industrial, federal, real estate development, and solid waste fields.



# Areas of Expertise

- Phase 2 ESAs
- Oversight and Documentation Activities for Landfill Expansions
- Soil and Groundwater Investigation and Remediation
- Environmental Monitoring and Reporting
- Data Analysis
- Site Closure Requests

# Registrations/ Certifications

Certified Site Assessor in the State of Wisconsin

#### Education/Training

- B.S., Geology, University of Wisconsin-Oshkosh, May 1998
- 40-Hour OSHA Hazardous Site Worker Training

## **Professional History**

- Hydrogeologist, BT Squared, Inc., 2005 to Present
- Associate Hydrogeologist, MWH Americas, Inc., 2000 to 2005

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# Solid Waste Management

- Developed alternative geotechnical reports, feasibility reports, and plans of operations for several landfill expansions.
- · Performed PAL/ACL calculations and for multiple landfills.
- Completed annual monitoring summary reports and performed groundwater and gas sampling for dozens of Wisconsin municipal landfills.
- · Provided oversight and documentation activities at numerous Wisconsin landfills.

# Soil and Groundwater Remediation

- Acted as health and safety officer for over 50 field investigations. Responsibilities included dust monitoring, personal air sampling, and training and observing site personnel to ensure all health and safety procedures are followed.
- Performed groundwater monitoring using various sampling and collection methods. Used on-site analytical equipment such as pH, conductivity, dissolved oxygen, and Red-Ox meters.
- Conducted several Phase 2 investigations for large industrial, state, and federal projects.
- Prepared hydrogeologic and geologic evaluations and interpretations for many landfills and Phase 2 site investigations and remediations.
- Completed asbestos, cross-connection, and backflow prevention surveys for an air force base in Japan.
- Developed over 50 proposals, workplans, health and safety plans, investigation reports, closure reports, and groundwater monitoring reports for landfill facilities and general Phase 2 investigations.
- Acted as lead geologist for hundreds of field investigations. Responsibilities included soil borings, soil sampling, well installations, aquifer conductivity testing and interpretation, borehole and well abandonments, well development, sediment sampling, groundwater and surface water sampling, vapor probe installation and sampling, stormwater and sanitary sewer sampling, and surveying.

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REMEDIATION RE AFETY MANAGEMENTS EANUP BROWNFIELD AL UALITY SURVEYING ENI VIRONMENTAL WASTE ICIPAL GEOTECHNICAL DESIGN PERMITTING CON TRUCTION ENERGY GIS MAPPING STORMWATER ANALYSIS ENGINEERING FICIENCY QUALETY GIV

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# ATTACHMENT B

DERF Site Remediation Cost Summary

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Task	Item Description	P \$150	SPM \$120	PPI \$88	FP \$78	SP \$78	Sr. Draft \$75	Travel \$45	PAI \$60	AAI \$40	Eq/Exp \$	BT <sup>2</sup> Total Costs	Sub S	Item Total Costs	Phase Total Costs
SVEPILOT	SVE Pilot Test														
	Project Management	2	2						1	1		\$640		\$640	1
	Scheduling/Coordination/Aquire Materials				6							\$468		\$468	
	SVE Pilot Test				8			9			\$820	\$1,849		\$1,849	
	Analytical Laboratory											\$0	\$192	\$192	1
	Write-up/Recommendations	1	3	18								\$2,094		\$2,094	
	SVE Well - See MNA below											\$0		\$0	
												\$0		\$0	
	Subtotals	3	5	18	14	0	0	0	1	1	\$820	\$5,051	\$192	<b>\$</b> 0	\$5,24
SVECON	SVE System Construction	2		10	14	U	0		1	1	ψ020	\$5,051	ψ174		¢3,44
LCON	Project Management	6	4						2	2		\$1,580		\$1,580	
	Install 1st SVE Well	0	7		8			0	2	2		\$1,269		\$1,380	
	Install 3 Additional SVE Wells		2		12			9				\$1,209			
			3	16	12			9						\$1,701	
	Scheduling/Coordination/aquire materials			16							<b></b>	\$1,408		\$1,408	
	Field Equipment/Expenses (inc. concrete)										\$1,340	\$1,340		\$1,340	
	Excavation Contractor (for trench and piping)											\$0	\$6,000	\$6,000	
	Analytical Laboratory											\$0	\$504	\$504	
	Piping Installation/hook up to wells				16	6		9				\$2,121		\$2,121	
	Blower										\$5,000	\$5,000		\$5,000	
	Electrician											\$0	\$2,000	\$2,000	
	Drilling Contractor (1st SVE well)											\$0	\$2,146	\$2,146	
	Drilling Contactor (2nd, 3rd, and 4th SVE wells)											\$0	\$3,173	\$3,173	
												\$0		\$0	
	Subtotals	6	9	16	36	6	0	27	2	2	\$6,340	\$14,419	\$13,823		\$28,24
SVEOM	SVE O&M - Two Years														
	Project Management	6	48					2	6	24		\$7,980		\$7,980	
	Sampling (24 visits - sub will do initial month)				104	2		216				\$17,832	\$1,500	\$19,332	
	Expenses										\$8,440	\$8,440	\$1,000	\$8,440	
	Electricity										\$0,110	\$0,110	\$2,000	\$2,000	
	Analytical Laboratory											\$0	\$7,680	\$7,680	
		0	20	80						24		\$11,600	\$7,000	\$11,600	
	Quarterly progress reports	0	20	00						24					
	0.1	14	(0	00	104	0	0	216	(	40	¢0.440	\$0	C11 100	\$0	
	Subtotals	14	68	80	104	0	0	216	0	48	\$8,440	\$45,852	\$11,180		\$57,032
MNA	GW MNA Monitoring - 1 Year Qrtly - 2 Years Semi-Ann														
	Project Management	8	30						16	12		\$6,240		\$6,240	
	Groundwater Sampling VOCs + RNA (8 rounds)				160			144				\$18,960		\$18,960	
	Progress reports		8	40			8			16		\$5,720		\$5,720	
	Analytical Laboratory											\$0	\$13,532	\$13,532	
	Purge Water Disposal				16							\$1,248	\$2,000	\$3,248	
	Expenses										\$8,100			\$8,100	
												\$0		\$0	
	Subtotals	8	38	40	176	0	8	144	16	28	\$8,100	\$40,268	\$15,532		\$55,80
RP	Reports and Closure														
	Remedial Action Options Evaluation	2	20		8		1			3		\$3,519		\$3,519	
	SVE System As-built Report	2	6	24		3	4			3		\$3,786		\$3,786	
	DERF Claim Prep		2						20	2		\$1,520		\$1,520	
	Closure Request	1	6	40		6				4		\$5,018		\$5,018	
	Abandonment of wells and SVE System		2		30			9			\$400	\$3,385		\$3,385	
	Additionment of wens and 5 vE system		2		50			,			\$400	\$0		\$0,585	
	Subtotals	5	36	64	38	0	5	0	20	12	\$400	\$17,228	\$0	<b>9</b> 0	\$17,22
		2					5	9	20			\$17,228			
	TOTALS	36		218	368				45	91	\$24,100		\$40,727		\$163,54
	TOTALS	\$5,400	\$18,720	\$19,184	\$28,704	\$1,170	\$975	\$18,225	\$2,700	\$3,640	\$24,100	\$122,818	\$40,727		\$163,54
:\P4999\[Cost	t_Estimate.xls]Labor										Service		Eligible	Non-	Tota
											Consultin	ng	\$90,827	\$31,992	\$122,81
											Commod	•	\$40,277	\$450	\$40,72
											COMMINO	IILY	040.211	5450	D40.12

\$131 Totals

<u>\$450</u>	\$40,727
\$32,442	\$163,545

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# ATTACHMENT C

Work Authorization No. 1, Terms & Conditions, Schedule of Charges



#### WORK AUTHORIZATION NO. 1 Former The Laundry Basket Dry Cleaners Project: Soil and Groundwater Remediation Date: January 13, 2011

CLIENT:		Ms. Lois Baldwin	BT Squared Project/		
		517 4 <sup>th</sup> Street	Proposal #:	P4999	
	Address:	Luck, WI 54853	Client Contract/P.O. #: Email:		
	Phone:	715-472-2410	FAX:		

Signing of this Authorization by CLIENT and CONSULTANT (BT Squared, Inc.) authorizes BT Squared to complete the Services as described below in consideration of the mutual covenants set forth on all pages of this Authorization and all documents incorporated by reference herein.

**PROJECT**: The Services described below are to be provided by BT Squared in connection with a Project identified as follows: Soil and groundwater remediation of the former The Laundry Basket dry cleaners

SCOPE OF SERVICES: BT Squared will perform the services indicated below: Services as described in attached correspondence dated

Х	Services as described in attached Correspondence dated Services as described in attached Scope of Services dated Services described below:	January 13, 2011
	OR SERVICES: BT Squared's fee for Services identified abo	

FEE FOR SERVICES: BT Squared's fee for Services identified above shall be as indicated below.

- X A Time and Materials fee based on personnel, equipment, and expense rates set forth on the attached Schedule of Charges invoiced on a monthly basis until project is complete.
- A lump sum fee of \$\_\_\_\_\_ Per Master Services Agreement.

\_\_\_\_ Other (specify):

BT Squared will perform Extra Services not specified in the Scope of Services, provided BT Squared and CLIENT have agreed to the scope and fee of such Extra Services either verbally or in writing.

#### TERMS:

X Terms and Conditions attached.

Master Services Agreement dated

CLIENT AND BT Squared acknowledge that they are in agreement with the scope of services, fees, and terms and conditions as set forth in this Work Authorization.

APPROVED FOR CLIENT:	ACCEPTED FOR BT Squared:				
Signature	Signature				
Name	NameMark Tusler, PE				
Title	Title	Principal			
Date	Date				
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# Schedule of Charges

#### PERSONNEL

Principal Senior Project Manager Survey Manager Senior Professional Construction Manager Project Professional II. Project Professional II. Staff Professional I Staff Professional Field Professional Senior Draftsperson/Designer Draftsperson Survey Crew Chief	\$ 120 – \$ 150/hour \$ 115/hour \$ 105/hour \$ 95/hour \$ 95/hour \$ 88/hour \$ 78/hour \$ 78/hour \$ 78/hour \$ 75/hour \$ 65/hour
Senior Technician Technician II Technician I Project Assistant II Project Assistant I Administrative Assistant II Administrative Assistant I Computer Support Technician	\$ 70/hour \$ 55/hour \$ 45/hour \$ 70/hour \$ 60/hour \$ 50/hour \$ 40/hour

#### EQUIPMENT AND EXPENSES

Groundwater Monitoring
Chipped Bentonite\$ 12/bag
Conductivity, Temp. & TDS Meter \$ 20/day
Dedicated Bailers\$ 35/each
Disposable Bailers\$ 15/each
Dissolved Oxygen Tubes\$ 5/each
Dissolved Oxygen Meter\$ 40/day
Dissolved Oxygen Test Kit\$ 10/day
Field Filters\$ 16/each
Field Filtering Apparatus\$ 22/day
Well Caps\$ 18.25/each
Petroleum Product Interface Probe .\$ 70/day
pH Meter\$ 20/day
Pressure Trans. / Data Logger\$ 125/day
Water Level Indicator\$ 20/day
Brass Well Locks\$10/each
Pumps
Well Development Pump\$ 10/day
Peristaltic Pump\$ 30/day
Submersible Pump\$ 50/day
2" Gas Engine Pump\$ 40/day
Sump Pump\$10/day
Explosion Proof Pump\$100/day

PPE and Air and Gas Mor	nitoring							
Air Monitoring Detector Tubes	\$ 5/each							
Four Gas Meter	\$ 65/day							
Landfill Gas Meter	\$ 100/day							
Personal Air Sampling Pump	\$ 25/day							
Respirator Cartridges	\$ 25/day							
Tyvek Suit	\$ 20/each							
Carbon Monoxide Meter	\$ 20/day							
High Volume Microbial Sampler	\$ 50/day							
Soil Sampling and Tes	sting							
FID/PID Rental	\$ 75/day							
Hand Auger Kit	\$ 15/day							
Nuclear Density Gage	\$ 125/day							
Soil Scale	\$ 25/day							
Remediation System O&M								
Muriatic Acid	\$ 7/gal.							
Vapor Sampling Kit	\$ 25/day							
Surveying								
Level/Laser Level	\$ 5/hour							
GPS Unit/Total Station	\$ 20/hour							
Survey Lath	\$ 0.30/each							
Survey Hubs	\$ 0.30/each							
Survey Chasers	\$ 0.20/each							

Marking Paint	\$ 4/each
3/4-inch Irons	\$ 3.50/each
Miscellaneo	ous
55-Gallon Drums	\$ 42/each
Water Storage Tank	\$ 25/day
Air Compressor	\$ 40/day
Curlex Blanket	\$ 65/each
Digital Camera	\$ 10/day
Portable Generator	\$ 40/day
HEPA Vacuum	\$ 40/day
Metal Detector	\$ 35/day
Pressure Washer	\$ 25/day
Oil Dry Absorbent	\$ 6/bag
Oil Absorbent Boom	\$ 50/each
Oil Absorbent Pad	\$ 0.75/each
Plastic Sheeting	
Spill Response Trailer	\$ 150/day
Utility Trailer	\$ 25/day
Copies	\$ 0.07/each
Vehicle	

Equipment and expense rates may be modified by BT Squared, Inc., from time to time as new equipment is added or costs change. Client will be notified prior to any change in the personnel rates that will affect the project billings.

Outside services contracted through BT Squared, Inc., will be billed at cost plus 10%. Outside services may include, but are not limited to, laboratory testing, drilling, or other subcontracted services.

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#### TERMS AND CONDITIONS

- PAYMENT: Invoices will be submitted by BT Squared, Inc., to Client monthly or upon completion of specific services with payment of the invoices being <u>due upon receipt</u>. Any unpaid and delinquent invoices shall bear interest at one and onehalf percent per month, commencing thirty days from the date of invoice. Any attorneys' fees, court costs and other related expenses incurred by BT Squared in the collection of delinquent invoice amounts shall be paid by Client. In the event any payment due BT Squared under the terms of this Work Authorization (herein "Authorization") is delinquent, BT Squared may suspend all services until all delinquent payments have been received. Fees charged do not include any state, federal or local applicable taxes, and taxes will be the responsibility of the Client.
- 2. ACCEPTANCE: If BT Squared is given a verbal or written notification to proceed without first receiving a signed copy of the Authorization, it will be mutually understood that Client and BT Squared will nonetheless be contractually bound by the Authorization and Terms and Conditions, even in the absence of written acceptance by either party. BT Squared may withhold a written report until it receives the Authorization signed by Client.
- 3. INDEPENDENT CONTRACTOR STATUS: BT Squared shall be fully independent in performing the services and shall not act as an agent or employee of Client. BT Squared shall perform its work as an independent contractor, and shall have responsibility for and control over details and means of the performance for the work described in the Authorization. BT Squared shall be solely responsible for the compensation, benefits, contributions and taxes, if any, of its employees, sub-contractors, and agents.
- WARRANTY OF CONSULTANT: BT Squared represents 4. that the services will be performed within the limits prescribed by Client and will be conducted in a manner consistent with that level of care and skill ordinarily exercised by members of currently the profession practicing under similar circumstances. Further, Client acknowledges that the adequacy of any written or oral report prepared by BT Squared is limited by Client's determination of the services to be provided by BT Squared and, therefore, BT Squared cannot guarantee the adequacy of BT Squared's report or the conclusions contained therein. No other representations or warranties on the part of BT Squared, whether express or implied, are included or intended in this Authorization, the Attachments or Exhibits hereto, or BT Squared's report.
- 5. INSURANCE: BT Squared represents that it is protected by Worker's Compensation insurance and that BT Squared has coverage under liability insurance policies that BT Squared deems reasonable and adequate. Upon request, BT Squared shall furnish certificates of insurance to the Client evidencing the risks insured against, and the limits of liability thereunder. In the event the Client requires specific inclusions of coverage in addition to that obtained by BT Squared, or increased limits of liability in BT Squared's liability policies, the cost of such inclusions or increased limits shall be borne by the Client.
- BT SQUARED'S LIABILITY: BT Squared's aggregate liability for damages arising out of the services rendered pursuant to this Authorization, whether arising out of tort or contract, is limited to an amount not to exceed \$50,000, or

the total gross billings of BT Squared to the Client hereunder, whichever is less. BT Squared is not liable for any consequential, special, punitive, or indirect damages, including but not limited to lost profits, loss of use of property and Client's breach of other contracts. BT Squared will be responsible only for the activities of its employees and for BT Squared's subcontractors. BT Squared shall not be responsible for the activities of any other contractors directly engaged by Client.

7. INDEMNIFICATION: Subject to the limitations set forth below, BT Squared shall indemnify, defend, and hold harmless Client and its subsidiaries and affiliates, and their respective shareholders, directors, officers, employees, agents, and subcontractors ("BT Squared Indemnitees") from and against any and all claims, demands, losses, damages, fines, costs, and expenses of every nature, including reasonable attorneys' fees ("Claims"), incurred or suffered by any BT Squared Indemnitee as a result of claims asserted by third parties unaffiliated with Client which arise from (a) the negligent acts or willful misconduct of BT Squared in performing services under this Authorization, except to the extent such claims result from the negligent acts or omissions of Client or any BT Squared Indemnitee, the inaccuracy or incompleteness of information provided by Client or any material breach by Client of its obligations under this Authorization, or (b) any material breach of this Authorization by BT Squared. BT Squared's indemnification obligation hereunder is limited to the limits of BT Squared's insurance coverage applicable to the Claims.

Client shall, to the maximum extent permitted by law, indemnify, defend and hold harmless BT Squared and its shareholders, directors, officers, employees, agents, and subcontractors from and against any and all Claims which any of them may incur or suffer or which may be asserted by a person whomsoever which arise out of or are in any way connected with (a) any condition existing at the Project prior to the commencement of BT Squared's services; (b) any release or threat of release, discharge, dispersal, or migration of waste materials, whether the same occurs before or after the commencement of BT Squared's services, except to the extent the same results from the negligent act or willful misconduct of BT Squared, or any generation, treatment, storage, transport or disposal of waste materials, or any reporting or failure to report any of the foregoing to governmental authorities; (c) any Claim of which BT Squared expressly has no liability under this Authorization; (d) the acts or omissions of Client and its subsidiaries and affiliates and their respective shareholders, officers, directors, employees, agents, contractors, or subcontractors; (e) the operation or management of the services by others; (f) any inaccuracy in any Client representation or warranty or any material breach by Client under this Authorization; (g) any unmarked or incorrectly marked subterranean structures, even if BT Squared helped arrange for marking or locating the utility or structure; or (h) handling, transportation and disposal of any Wastes, as defined in Paragraph 13 hereof, in the course of BT Squared's performance of services under this Authorization. Client waives and releases any claim against BT Squared arising from or relating to any of the foregoing.

8. UTILITIES: The Client agrees to provide such information regarding the site(s) at which services will be performed to allow safe and proper conduct of BT Squared's work. The information shall include, but not necessarily be limited to, the location of on-site and off-site utilities, as-built or other drawings, or existing known contaminants or other knowledge as appropriate. Client may request, but BT Squared is not obligated to provide, assistance with arranging for public utility or private locators.

- 9. CONSTRUCTION LIEN NOTICE: As required by the Wisconsin Construction Lien Law, BT Squared hereby notifies Client that persons or companies furnishing labor or materials for the construction, or services provided, on Client's land may have lien rights on Client's land and building if not paid. Those entitled to lien rights, in addition to the undersigned BT Squared, are those who contract directly with Client or those who give Client notice within 60 days after they first furnish labor or materials for construction or performance of services. Accordingly, Client probably will receive notices from those who furnish labor or materials for the construction or performance of services, and should give a copy of each notice received to the mortgage lender, if any. BT Squared agrees to cooperate with Client and Client's lender, if any, to see that all potential lien claimants are duly paid.
- 10. FORCE MAJEURE: Neither party shall be deemed in default of this Authorization to the extent that any delay or failure in the performance of its obligations (other than the payment of money) results, without its fault or negligence, from any cause beyond its reasonable control, including, without limitation, acts of God, acts of civil or military authority, embargoes, epidemics, war, riots, insurrections, fires, explosions, earthquakes, floods, adverse weather conditions, acts of other contractors, strikes, or lock-outs.
- 11. GOVERNING LAW: This Authorization shall be governed by and interpreted pursuant to the laws of the State of Wisconsin.
- 12. RIGHT-OF-ENTRY: Client will furnish right-of-entry for BT Squared to such property as may be necessary for BT Squared to perform the services under this Authorization. BT Squared will take reasonable precautions to minimize damage to any such property caused by BT Squared's equipment, but has not included in BT Squared's Authorization the cost of restoration of damage which may result from BT Squared's operations. If Client requires BT Squared to restore property to its former condition, Client shall so notify BT Squared in writing prior to executing this Authorization and the costs associated with such restoration shall be added to BT Squared's fee and paid by Client.
- 13. HAZARDOUS SUBSTANCES PREEXISTING AND CONDITIONS: If state or federally regulated hazardous, toxic or dangerous wastes as defined by state or federal regulations (hereinafter "Wastes") are encountered at the site, and if these Wastes require handling, transportation or disposal at an off-site facility BT Squared will assist in advising the Client of the Client's options. Client acknowledges that BT Squared is not an "arranger", "transporter", "generator" or "operator" (as those terms are defined in any environmental federal, state or local statute or ordinance) with respect to the Wastes and that BT Squared will not accept title to, sign manifests for, or take control of any Wastes.
- 14. ASSIGNMENT AND SUBCONTRACT: BT Squared shall not assign this Authorization without prior written consent of Client, but may employ any other party it deems necessary or proper for any part of the services required to be performed

by BT Squared under the terms of this Authorization. Client shall not assign this Authorization without prior written consent of BT Squared.

- 15. **TERMINATION**: Either party may terminate this Authorization at any time upon written notice to the other sent to the address set forth on the Authorization. In such events, BT Squared will be compensated for services performed under this Authorization to the termination date together with all costs arising out of such termination.
- 16. **TIME LIMIT FOR CLAIMS**: Any claim brought by Client against BT Squared will be brought not later than one year after the date of substantial completion of BT Squared's services for which the claim is made or the expiration of the appropriate statute of limitation, whichever is earlier.
- 17. ENTIRE AGREEMENT: The terms and conditions set forth herein along with the Authorization (and any referenced attachments) constitute the entire understanding of the parties relating to the provision of services by BT Squared supersede all prior or contemporaneous and communications, representations or agreements, whether oral or written, between the parties. No alterations to or modifications of the terms and conditions of this Authorization shall be effective unless such alteration or such modification is reduced to writing and properly executed by the parties hereto.
- 18. SEVERABILITY: The invalidity or unenforceability of any particular provision of this Authorization or any portion thereof shall not affect the other provisions hereof, and the Authorization shall be construed in all respects as if such invalid or unenforceable provision or any portion thereof were omitted.
- 19. ENVIRONMENTAL SITE ASSESSMENTS:

BT Squared's Environmental Site Assessment reports represent our professional judgment and are limited to those site conditions and potential impacts from neighboring properties that could be discovered under the scope of services authorized by the Authorization. The conclusions and interpretations of Environmental Site Assessment reports do not collectively define all the risks associated with purchase or other use of a property. While attempts have been made to relate the data and findings to applicable environmental laws and regulations, the report shall not be construed to offer legal opinion or representations as to the requirements of, or compliance with environmental laws, rules, regulations or policies of federal, state or local government agencies.

20. USE OF DOCUMENTS: All reports and other documents prepared by BT Squared under this Authorization are instruments of service of BT Squared and BT Squared shall retain a property interest in those reports and documents until Client has made full payment to BT Squared for such documents pursuant to this Authorization. All reports and documents generated by BT Squared pursuant to this Authorization are not intended or suitable for reuse by Client or any other party for any purpose. Reuse of any reports or documents for any other purpose without written consent of BT Squared shall be at Client's and the user's sole risk without any liability on BT Squared's part. The provisions of this <u>Paragraph 20</u> shall survive the termination of this Authorization.

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···· Smart, Simple Solutions

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# ATTACHMENT D

DERF Certifications and Certificate of Insurance

#### **DERF Qualifications**

In accordance with ch. NR 169.23(3)(b), BT Squared will:

- Be fully informed about the project's scope and required services, and have the experience and ability to analyze alternatives and design the most suitable response action consistent with technical and economic feasibility, environmental statutes and rules, restoration timeframes, and the latest technical advances.
- Provide necessary staff and facilities for all phases of planning, investigation, design, construction, and operation.
- Retain and confer with specialists on unusual matters; provide qualified technical reviewers, who will keep the owner advised on technical and regulatory matters and work toward planned remediation goals.
- Perform all services in an ethical, professional, and timely manner.

#### Certifications

In accordance with ch. NR169.23(3)(b), BT Squared certifies that:

- BT Squared is fully informed about the project scope and has the expertise to analyze alternatives and design the most suitable response action.
- BT Squared will provide necessary staff and facilities for all phases of planning, design construction, and operation.
- BT Squared will provide qualified technical reviewers to advise the owner and work toward remedial goals.
- BT Squared will provide all services in an ethical, professional, and timely manner.

In accordance with ch. NR169.23(9)(a), BT Squared certifies that:

- Consultant and contract services will comply with NR 700 NR 728
- Upon request, BT Squared will make available to the department for inspection and copying all documents and records related to the contract services.
- BT Squared did not prepare bid in collusion with any other consultant submitting a bid on the site.

P:\P4999\DERF Qualifications & Certifications.doc

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	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.											
L	IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the											
	certificate holder in lieu of suc	ch endorseme	ent(s).		CONTAG			· · ·				
ſ	KLEIN INS. GROUP	OF MADIS	ON		NAME:	David	Scholes					
702 N. HIGH POINT RD., STE 201					(A/C, No, Ext): 608-828-0237 (A/C, No): 608-831-4777							
PO BOX 45470					ADDRESS: dscholes@kleinins.com							
MADISON WI 53744-5470					CUSTOMER ID #: BTS0001							
Phone: 608-831-9700 Fax: 608-831-4777					INSURER(S) AFFORDING COVERAGE NAIC #							
IN	SURED				INSURERA: United Fire & Casualty							
	BT Squared, 2830 Dairy D Madison WI 5	Inc. Drive			INSURER B: ACE Westchester Speciality							
	Madison WI 5	53718-675	1		INSURER C :							
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THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.												
			R WVD			POLICY EFF (MM/DD/YYYY)	(MM/DD/YYYY)		TS			
	GENERAL LIABILITY							EACH OCCURRENCE	\$1,0	00,000		
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		CCUR						MED EXP (Any one person)	\$	5,000		
₽	X Blkt Addt In	nsured		XCU HAZARDS INCLUDED				PERSONAL & ADV INJURY	\$1,0	00,000		
₽	X Blkt Waiver	Subro						GENERAL AGGREGATE	\$2,0	00,000		
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_		LOC						Emp Ben.	\$1,0	00,000		
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	ANY PROPRIETOR/PARTNER/EXEC OFFICER/MEMBER EXCLUDED?							E.L. EACH ACCIDENT	\$ 100	0000		
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	ESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)											
	ERTIFICATE HOLDER			······································	CAN	CELLATION	N .					
	0000000 SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE   THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN   ACCORDANCE WITH THE POLICY PROVISIONS.											
	AUTHORIZED REPRESENTATIVE											
	Fours & Marino											
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