GONZALEZ
SAGGIO
HARLAN

July 24, 2015

Matthew X. O'Connor
Account Manager
Resolute Management, Inc.
New England Division
1000 Washington St.
4th Floor
Boston, MA 02118

Re: Claimant: Ehrlich Family Limited Partnership PDQ/ Paris Cleaners
Environmental Claim
Policy No. SMP 96770 (10/4/1971) & SMP 179085 (10/30/1977)

Dear Mr. O'Connor:

This letter is on behalf of the Ehrlich Family Limited Partnership ("Ehrlich") regarding the above-referenced Claim.

This is notice of an important development. On July 22, 2015 the Wisconsin Department of Natural Resources ("WDNR) approved a pilot test of an oxygenation compound, known as Cool-Ox™ (enclosed). The Pilot Test is described on the enclosure dated July 21, 2015. If the pilot test is successful, the WDNR will likely approve the revised remedial proposal of Huntoon Environmental Consulting, LLC dated July 21, 2015 (enclosed). Remedial work would then commence as soon as it can be scheduled, probably in September 2015. Testing would be performed in October 2015 to determine whether the soil has been adequately remediated. Testing of groundwater would occur quarterly over a period of eight months. Upon satisfactory demonstration of groundwater quality, we would seek case closure from the WDNR.

If you have any questions, please direct them to the undersigned.

Very truly yours,

William P. Scott

William P. Scott

WPS/sv

Enclosures

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Matthew X. O'Connor

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X ☐ Agent ☐ Addressee

B. Received by *(Printed Name)* | C. Date of Delivery

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

Huntoon Environmental Consulting, LLC

July 21, 2015

Ms. Nancy Ryan
Ms. Pamela Mylotta
Wisconsin Department of Natural Resources
2300 North Martin Luther King, Jr. Drive
Milwaukee, Wisconsin 53212

RE: Request Change Order - Soil Remediation Pilot Test
Former Express Cleaners
Racine, Wisconsin
BRRTS Number 02-52-547631

Dear Ms. Ryan and Ms. Mylotta:

Approval is requested for a change order to the Site Investigation to perform a Pilot Test at the Former Express Cleaners site in Racine, Wisconsin. This letter presents the proposed scope of work for the Cool-Ox™ Pilot Test at the above site. The test will be conducted in the location shown on Figure 1. This location was selected because it is adjacent to the location of sample B-4, which had the highest tetrachloroethene (PCE) concentration discovered above the water table during the former site investigation.

Pilot Test Procedures

During completion of the Pilot Test, all field activities will be observed, photo-documented and recorded in a field log book by Huntoon Environmental Consulting, LLC (HEC). The remediation contractor, Deep Earth Technologies (DET) will remove the pavement in a 5-foot by 5-foot area. DET will excavate 2.5 feet of soil from that area using a backhoe. As part of the in-situ treatment, the excavated soil will be temporarily laid down on plastic within the Area of Contamination before being returned to the excavation for consolidation and in-situ treatment.

Prior to additional work, HEC will collect a soil sample from a depth of approximately 4.5 feet below ground surface (bgs), and another sample from the soil excavated from approximately the 2.5 to 3 foot depth. These samples will be collected in laboratory-supplied containers, and shipped on ice to the Test America laboratory in College Park, Illinois, for analysis of chlorinated volatile organic compounds (CVOCs).

Utilizing a small backhoe, DET will mix a solution of the Cool-Ox™ reagent in the pump rig and apply the reagent, blending it into the soil using the excavator bucket to achieve a good blend and ensure contact with the soil. The reagent will be blended into soils from a depth of 2.5 feet bgs to the top of the water table, which is estimated to be at a depth of approximately 5 feet bgs. The intent is not to mix below the water table. DET will then incorporate the excavated soil that had been piled on plastic, mixing in a solution of Cool-Ox™ as the soil is returned to the excavation until the soil is mixed thoroughly. Cool-Ox™ will be applied at the approximate rate of 10 gallons per cubic yard of soil, for an estimated total of 50 gallons, which is the same application rate proposed for the full-scale remediation. After all the soil has been placed back into the excavated area and mixed, the area will be covered with plastic and snow fencing will be placed around the treatment area. HEC will record the actual application rate and total amount of Cool-Ox™ used in the Pilot Test.

After a period of 2 weeks, HEC will return to the site to conduct confirmation sampling. Using a hand auger, two soil samples will be collected: one from a depth of 2.5 feet bgs and one from a depth of 5 feet bgs (or immediately above the water table, whichever is encountered first). As with the earlier samples, these samples will be placed in laboratory-supplied containers and shipped on ice to Test America for analyses of CVOCs.

The non-residential direct contact residual contaminant level (RCL) for PCE is 30.7 mg/kg. For this site, our proposed RCL is an order of magnitude lower, at 3 mg/kg. Consequently, we propose a successful Pilot Test be indicated by post-test contaminant concentrations of 3 mg/kg or less.

Following performance of the field activities, HEC will draft a letter report describing and documenting the field activities, locations and depths of soil mixing, amount and application rate of Cool-Ox™ reagent used, locations and depths of soil sampling and other pertinent information. After the final analytical report is received from the laboratory, soil sample results will be evaluated and compared with former concentrations detected in site soils to determine effectiveness. The final letter report will be provided to the Department for evaluation.

Based on a quote from DET, HEC estimates the following costs for the Pilot Test:

EXPENSE	COST
Deep Earth	$10,600
Laboratory	$400
Huntoon Environmental	$2,000
Total	**$13,000**

The estimated costs are also provided on the attached Drycleaner Environmental Repair Fund Reimbursement Cost Detail Linking Spreadsheet (Form 4400), as required.

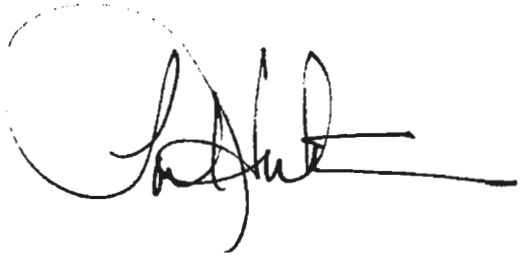
HEC did not request a Pilot Test for the injection. DET has an extensive track record of injecting the Cool-Ox™ reagent to treat groundwater. Injection is only used to deliver the reagent below the water table, in several locations within the designated area, in order to treat the shallow groundwater. The reagent is placed in the subsurface utilizing direct push technology. After delivery, the reagent is spread in the subsurface by means of both mechanical and chemical dispersion. Testing the effectiveness of injection into groundwater is a long-term process not suited to Pilot Testing, in that it could take months after the injection for treated groundwater to reach a monitoring well. Consequently, it is HEC's opinion, as well as that of DET, that a Pilot Test on the injection aspect of the project is impractical.

We believe that this plan outlines a satisfactory approach to test the effectiveness of Cool-Ox™ for the remediation of the former Express site. We request approval to perform the Pilot Test on July 24, 2015, as DET, the remedial contractor, will be on a large project out of the area and unavailable to perform the Pilot Test for 1 to 2 months. If the Pilot Test is postponed, we will lose the remediation schedule arranged with DET, jeopardizing our ability to remediate the site this calendar year. To allow timely commencement of the remedial action, we need immediate approval of this Pilot Test to allow DET to perform the work on July 24, 2015.

If you have any questions or require additional information, please contact us.

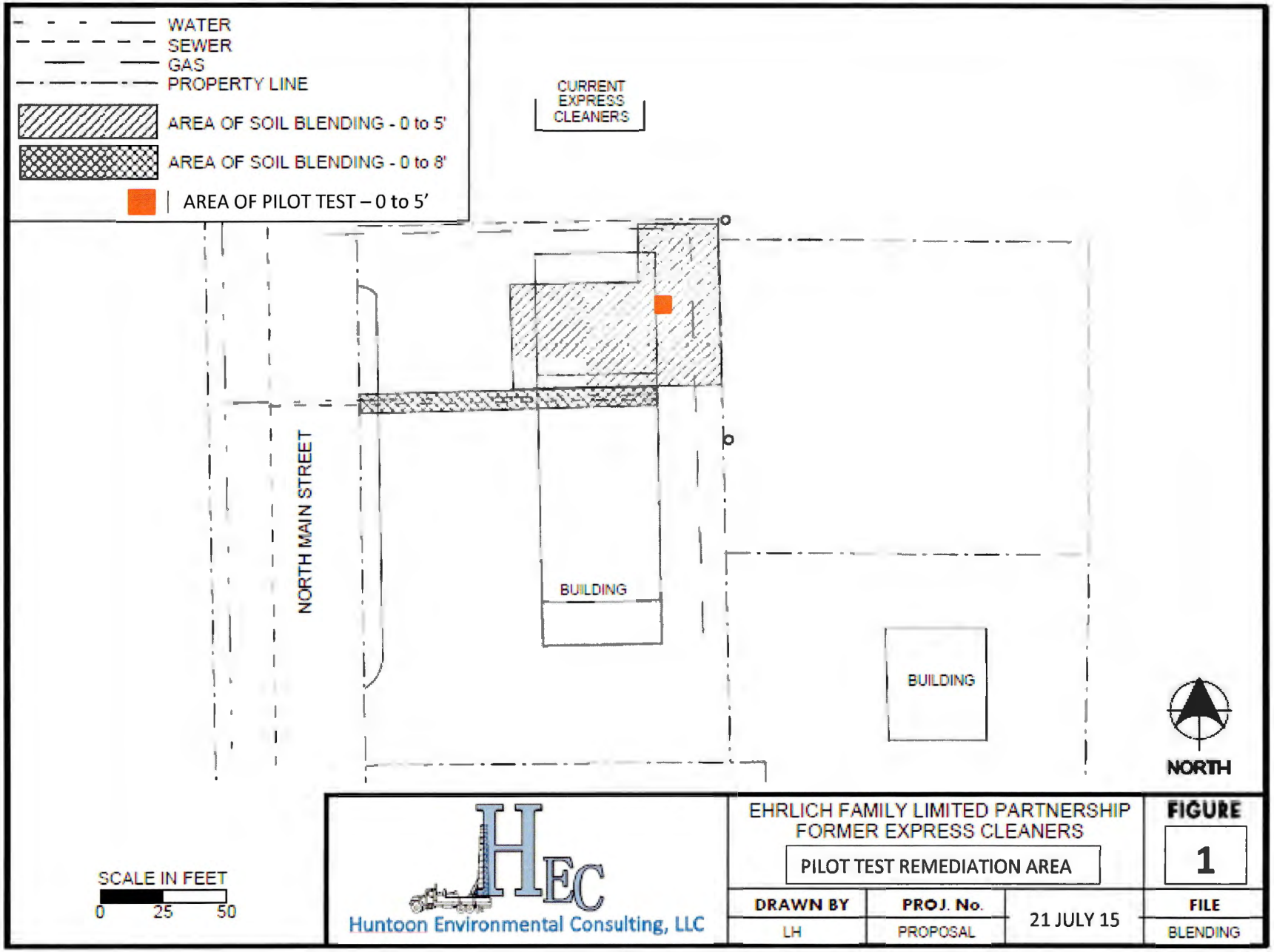
Sincerely,

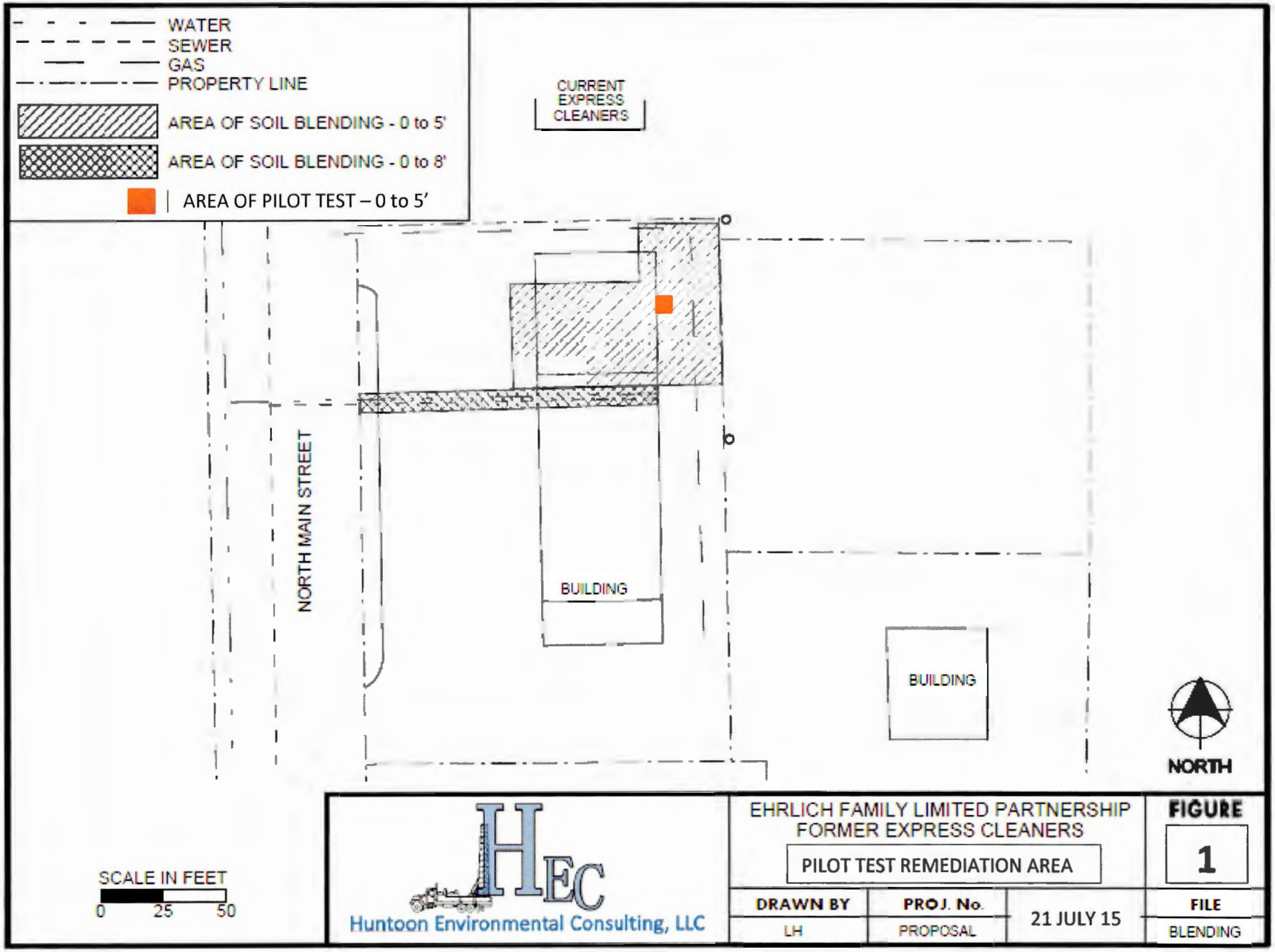
HUNTOON ENVIRONMENTAL CONSULTING, LLC



Lori Huntoon, P.G.
Principal Hydrogeologist

Attachments: Figure 1 – Treatment Area of Pilot Test
Pilot Test Cost Estimate on DERF Cost Spreadsheet (Form 4400-214D)


WATER
SEWER
GAS
PROPERTY LINE
AREA OF SOIL BLENDING - 0 to 5'
AREA OF SOIL BLENDING - 0 to 8'
AREA OF PILOT TEST – 0 to 5'
CURRENT EXPRESS CLEANERS
NORTH MAIN STREET
BUILDING
BUILDING
NORTH
SCALE IN FEET
0 25 50
Huntoon Environmental Consulting, LLC
EHRLICH FAMILY LIMITED PARTNERSHIP
FORMER EXPRESS CLEANERS
PILOT TEST REMEDIATION AREA
FIGURE
1
DRAWN BY
LH
PROJ. No.
PROPOSAL
21 JULY 15
FILE
BLENDING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HEC
Huntoon Environmental Consulting, LLC
EHRLICH FAMILY LIMITED PARTNERSHIP
FORMER EXPRESS CLEANERS
PILOT TEST REMEDIATION AREA
FIGURE
1
DRAWN BY
LH
PROJ. No.
PROPOSAL
21 JULY 15
FILE
BLENDING

Site Name: *Former Express Cleaners, Racine, WI*
BRRTS #: *02-52-547631*
Type of Action: *Site Investigation Change Order - Pilot Test*

Dry Cleaner Environmental Response Program
Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 08/12)

TASKS	BUDGET				INVOICES						DERF COST BREAKOUT (this claim)									
Bid / Budgeted Description	Bid / Budgeted Amount	INSERT	Total Approved Budget	Previous Claims (If applicable)	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	INSERT	Total Invoiced Costs	A Soil Investigation	B Soil Remediation	C Groundwater Investigation	D Groundwater Remediation	E Air/Vapor Investigation	F Air/Vapor Remediation	G Lab & Other Analysis	H Miscellaneous Costs	Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks
Consultant Costs																				
Task	$ -	$ -	$ -							$ -									$ -	Task % Complete
HASP	$ 300.00		$ 300.00							$ -									$ 300.00	
Baseline soil sampling	$ 150.00		$ 150.00							$ -									$ 150.00	
Oversee pilot test excavation/remediation	$ 800.00		$ 800.00							$ -									$ 800.00	
RA Documentation Summary Report	$ 250.00		$ 250.00							$ -									$ 250.00	
Analysis and Interpretation of Data	$ 200.00		$ 200.00							$ -									$ 200.00	
Final Remedial Action Pilot Test Report	$ 300.00		$ 300.00							$ -									$ 300.00	
			$ -							$ -									$ -	
			$ -							$ -									$ -	
			$ -							$ -									$ -	
			$ -							$ -									$ -	
Consultant Cost Total	$ 2,000.00	$ -	$ 2,000.00	$ -						$ -									$ 2,000.00	
Sub-Contractor Costs																				
Service	$ -	$ -	$ -							$ -									$ -	
DET mobilization	$ 600.00		$ 600.00							$ -									$ 600.00	
DET remediation	$ 10,000.00		$ 10,000.00							$ -									$ 10,000.00	
			$ -							$ -									$ -	
TestAmerica CVOC soil analysis (6)	$ 400.00		$ 400.00							$ -									$ 400.00	
			$ -							$ -									$ -	
			$ -							$ -									$ -	
Sub-Contractor Cost Total	$ 11,000.00	$ -	$ 11,000.00	$ -						$ -									$ 11,000.00	
DERF ELIGIBLE SUB-TOTALS	$ 13,000.00	$ -	$ 13,000.00	$ -	$ -	$ -	$ -	$ -	$-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 13,000.00	
Non-DERF Eligible Expenses	[redacted]																			
										$ -										
										$ -										
Non-DERF Cost Total				$ -	$ -	$ -	$ -	$ -		$ -										
INVOICE GRAND TOTAL				$ -	$ -	$ -	$ -	$ -	##	$ -										
Check Numbers	[redacted]																			

Total DERF Eligible Costs This Claim $ -

Former Express Cleaners Site, Racine, WI
BRRTS #: 02-52-547631
Site Investigation Change Order - Pilot Test

CLARIFICATION OF COSTS

Bid / Budgeted Description			estimated
Consultant Costs	**rate/hour**	**hours**	**costs**
Health and Safety Plan	$100	3	$300
Baseline soil sampling	$100	1.5	$150
Oversee pilot test excavation/remediation	$100	8	$800
RA Documentation Summary Report	$100	2.5	$250
Analysis and Interpretation of Data	$100	2	$200
Final Remedial Action Pilot Test Report	$100	3	$300
Consultant Cost Total		20	$2,000
Sub-Contractor Costs	**cost**	**#**	**estimate**
DET mobilization			600
DET soil blending			10000
DET Cool-Ox			
DET equipment			0
TestAmerica CVOC soil analysis (6)	66.65	6	400
Sub-Contractor Cost Total			11000
DERF ELIGIBLE SUB-TOTALS			**13000**

submitted by Huntoon Environmental Consulting, LLC
7/21/2015

Proposal for

Remedial Action

Former Express Cleaners Site

Racine, Wisconsin

Submitted to:

Ehrlich Family Limited Partnership
c/o Bill Scott, Attorney
Gonzalez Saggio & Harlan LLP
111 E. Wisconsin Avenue, Suite1000
Milwaukee WI 53202

Submitted by:

Huntoon Environmental Consulting, LLC
P.O. Box 259927
Madison WI 53725
608-886-7245

REVISED – 21 July 2015

(revised text is italicized)

CONTENTS

1. PROJECT TEAM QUALIFICATIONS

Huntoon Environmental Consulting, LLC and DeepEarth Technologies, Inc. are pleased to provide this response to the Request for Remedial Action Bid Proposal for the Former Express Cleaners Site (Site) located at 3921-41 N. Main Street in Racine, Racine County, Wisconsin. We respectfully submit the proposal response to Nancy Ryan, Project Manager with the Wisconsin Department of Natural Resources (WDNR) and the Ehrlich Family Limited Partnership through their representative, Attorney Bill Scott of Gonzalez, Saggio & Harlan, LLP.

Huntoon Environmental Consulting, LLC (hereinafter referred to as HEC or Huntoon Environmental) is a woman-owned business incorporated in the State of Wisconsin with an office in Beloit, Wisconsin. The company is a Wisconsin registered professional geologist firm (#74-##) and qualifies as a small business enterprise (SBE). Principal and owner of the company, Ms. Huntoon is a registered professional geologist with the State of Wisconsin (#13-008) and has over 25 years of professional experience. For more than two years, the firm has provided expert environmental consulting services to municipalities, law firms, small businesses, and citizen's groups involving a wide array of environmental concerns.

DeepEarth Technologies, Inc. (hereinafter referred to as DET or DeepEarth Technologies) is a women-owned technology development and field services company specializing in the remediation of toxic and hazardous chemical contaminants in soil and groundwater. The company has developed and marketed a new patented concept of in-situ chemical oxidation that has harnessed classical hydrogen peroxide chemistry so that the oxidation reaction can be controlled, which has opened the door to treating a broad spectrum of contaminants under complex conditions. The company has designed and managed projects throughout the country, achieving site closure at many previously-contaminated sites.

1.1 Project Understanding

The Project Team consisting of Huntoon Environmental and DeepEarth Technologies has a strong understanding of the project history, scope and objectives. The objectives of remediation activities at the Racine site are understood to be as follows:

1) to contain and reduce the groundwater plume;

2) to substantially reduce the threats posed by vapor intrusion;

3) to ensure remaining on-site contamination is attenuated within a reasonable time;

4) to conduct all activities in compliance with appropriate legislation and WDNR guidance; and,

5) to achieve case closure from the WDNR.

The team is fully informed regarding the project scope. It is understood that the source of the majority of contamination in soil and groundwater beneath the site was an on-going release of solvent utilized in dry cleaning operations. These solvents, and in particular PCE, sorb to soil particles and are held as residual contaminants in soil and groundwater pores. Denser than water, constituents migrate below the water table and can be transported significant distances with groundwater flow. The subsurface distribution of contaminants has been defined based on several site investigations conducted in the past.

1.2 Expertise in Evaluation of Alternatives

The consultant and contract service provider have significant expertise to analyze remedial alternatives at the Former Express Cleaners Site and determine the most suitable response action. Ms. Huntoon has conducted remedial action alternatives analyses and feasibility evaluations on hundreds of contaminated sites, the majority of which were located within the State of Wisconsin. Of this vast experience, a significant number of projects included former or current drycleaning sites, and chlorinated hydrocarbon contaminants.

1.3 Relevant Capabilities of the Project Team

The proposed project team is accomplished in the completion of similar remedial programs.

With over 20 years of experience with soil and groundwater investigation and remediation, Ms. Huntoon will provide project management and technical oversight for all activities related to site remediation, monitoring, data evaluation and associated reporting. An extremely qualified technical reviewer, she has the experience and credentials to advise the owner and the owner's representatives on all aspects of the project to achieve the remedial goals.

Huntoon Environmental can also provide additional staff which consist of experienced program managers who are licensed as professional geologists with over 20 years of experience. These additional staff will assist Ms. Huntoon with quality assurance/quality control of laboratory data, experienced peer review, and oversight of field activities as needed.

Huntoon Environmental, DeepEarth Technologies, and the additional contractors selected for the Project Team will provide the necessary experienced and qualified staff and sufficient facilities for completion of each task described herein. Professional and dependable, the Project Team will perform all work in an ethical, professional, and timely manner.

A company summary and corporate qualifications for Huntoon Environmental and DeepEarth Technologies are included as Attachments C and D, respectively. References are available upon request. Each member of the team has outstanding qualifications and significant experience to implement the relevant aspects of the remedial action plan.

2. TECHNICAL & ECONOMIC FEASIBILITY EVALUATION OF ALTERNATIVES

An initial evaluation of alternatives has been conducted for the Site, per Chapter NR 722.07 Wisconsin Administrative Code (WAC) and based partly on the recent publication Understanding Chlorinated Hydrocarbon Behavior in Groundwater: Guidance on the Investigation, Assessment and Limitations of Monitored Natural Attenuation (WDNR, RR-699, October 2014). This evaluation process has been used to determine which remedial action option constitutes the most appropriate technology to restore the environment, to the extent practicable, within a reasonable period of time and to minimize the harmful effected of contaminants to the air, land, and waters of the State; to address the exposure pathways of concern; and, to effectively and efficiently address the source of the contamination.

Alternatives have been evaluated for technical and economic feasibility as provided in NR722.07(4) WAC. This assessment included the evaluation of a range of remedial action options suitable for the Site, to determine the practicability of implementing these options at the Former Express Cleaners Site. An initial screening of remedial technologies reasonably likely to be feasible for the Former Express Cleaners Site included the following remedial action options:

2.1 Natural Attenuation

Monitored natural attenuation may be an appropriate and effective remedy at chlorinate-contaminated groundwater sites given the appropriate conditions. As summarized by WDNR (RR-699, October 2014), "availability of a carbon source along with the proper geochemical and microbial conditions necessary for degradation determine whether chlorinated contaminants will degrade naturally. Effectiveness of MNA is based on fully defining the plume, documenting conditions for natural attenuation throughout the plume, and long-term monitoring data that documents natural attenuation processes will continue to be effective until standards are met".

For the Former Express Cleaners Site, an active remedial action that will reduce the contaminant mass and concentration has been deemed necessary. Natural attenuation is not expected to actively reduce contaminant mass and concentrations of chlorinated compounds (in particular, PCE).

2.2 Enhanced MNA

Monitored natural attenuation (MNA) will address the residual groundwater contamination remaining upon completion of active remedies, which will remove the majority of contamination. "Most sites contaminated with chlorinated hydrocarbons will require active remediation for source reduction and perhaps for plume control. MNA is more likely to be successful when used as one part of a comprehensive site cleanup, rather than as a sole remedy, at most chlorinated hydrocarbon sites" (WDNR, RR-699, October 2014).

Based on the contaminant source and type, extent of soil and saturated material that contain residual contamination, and potential for continuing source release, an assessment and determination of effectiveness of NA processes has determined the need for active remediation at the Site.

2.3 Insitu Chemical Oxidation

In-situ chemical oxidation would involve advancement of borings to apply the reagent in source areas, as well as areas of higher groundwater concentrations which include the central portion of the former S.C. Johnson property located east of the Site. Cool-Ox™ Technologies would be the reagent of choice for the in-situ chemical oxidation. Borings would be advanced for the application of reagent below the groundwater, which would stimulate the biodegradation of chlorinated VOCs. In addition, impacted soil throughout the area of concern would be excavated and blended with reagent to treat soil in the area from the surface to directly above the water table.

Comparison of pre- and post-treatment soil samples on similar sites utilizing the Cool-Ox™ in-situ chemical oxidation technology, including a PCE-contaminated site in Wisconsin, demonstrated a decrease in PCE concentrations from approximately 500 mg/kg to less than 3 mg/kg.

2.4 Excavation and Disposal

Excavation and landfill disposal of contaminated soil and groundwater is not deemed an appropriate methodology for the Site. Per chapter NR722(07)(am) WAC, "Responsible parties shall document their evaluation of a remedial option or combination of options which would use recycling or treatment technologies that destroy or detoxify contaminants, rather than transfer the contaminants to other media."

3. PROPOSED REMEDY AND ABILITY TO ACHIEVE CLOSURE

In-situ chemical oxidation is proven to be effective in remediating the substances present at the Site and has met all of the following requirements:

- Is proven to be effective in remediating the type of hazardous substances present at the Site based on experience gained at other sites with similar site characteristics and conditions;
- Can be implemented in a manner that will not pose a significant risk of harm to human health, safety, welfare or the environment; and,
- Is likely to result in the reduction or control, or both, of the hazardous substances present at the site to a degree and in a manner that is in compliance with the requirements of chapter NR722.09 WAC.

Therefore, based on an assessment and determination of the effectiveness of the natural attenuation processes occurring at the Site, in addition to an evaluation of the extent and degree of chlorinated contaminants, the site geologic and hydrogeologic setting, site geochemistry, and redox potential, **it is determined that in-situ chemical oxidation, combined with enhanced RNA, is the most effective and efficient remedial option for the Site**.

3.1 Description of In-Situ Chemical Oxidation Remedy

The patented Cool-Ox™ process is an in-situ remediation technology that combines controlled chemical oxidation with accelerated biodegradation subsequent to the oxidation phase. The process is based upon the use of hydrogen peroxide as the generator of oxidizing radicals. However, unlike the Fenton-like processes which use liquid hydrogen peroxide, the Cool-Ox™ Technology generates hydrogen peroxide from solid peroxygens that are injected into the soil or groundwater in an aqueous suspension. Once in place, the peroxygens react with water to produce hydrogen peroxide, a reaction which is well understood.

The distinguishing feature of the Cool-Ox™ technology is that it does not require the injection of metal catalysts to activate the production of oxidizing radicals in the substrata; thus, the creation of heat is eliminated and the volatilization of VOCs is eliminated. This is an extremely important safety factor when dealing with compounds having low toxicity thresholds. Rather than remedial applications that create odor problems, the Cool-Ox™ process oxidizes the contaminant molecule, converting it to an alcohol or polyol. These reaction products are converted to wetting agents and are actually converted to odor control agents.

A very important characteristic of the Cool-Ox™ technology is that the chemical reaction is controllable and self-initiating, as the reaction starts when the oxidizer comes into contact with organic contaminants. Because peroxygens are only sparingly soluble in aqueous solutions, the dissolution rate is quite slow. Once the oxidation reactions of the remedial work have begun taking place, the oxidation by-products create an environment ideal for the proliferation of intrinsic microbial degraders. Therefore, once injected, the reagent remains in the contaminated media for an extended period of time before becoming soluble. This low solubility feature also allows peroxygens to be hydraulically distributed by the injection equipment, increasing the

radius of influence from the injection point, which significantly increases the potential for the oxidizer to come into contact with the contaminants.

Site-specific Cool-Ox™ Technology remedial action at the Former Express Cleaners Site in Racine will involve injection of reagent into groundwater, and blending of contaminated soil with reagent material for remediation of the impacted area above the water table.

Activities will include the advancement of soil borings at multiple locations across the most highly contaminated area of the site, with injection of reagent material several feet into the groundwater to stimulate the biodegradation of chlorinated VOCs in groundwater. An illustration of the estimated treatment area is provided as Figure 1.

Soil blending of contaminated soil with reagent material will be completed above the water table throughout the area of concern. Concentrations of soil contaminants will be reduced through the blending of reagent material with impacted soil, which will create the reduction of chlorinated VOCs on soil particles. An estimated 1070 cubic yards of impacted soil will be treated throughout an area 5760 ft^2 in size. The estimated areal extent of soil blending is provided as Figure 2.

Specialized application procedures developed by the DeepEarth Technologies field crew will ensure that the reagent is delivered to maximize contact with the contaminants.

3.2 Successful Applications at Similar Sites

DeepEarth Technologies has demonstrated successful oxidation of a broad range of organic chemical constituents in groundwater and soil at multiple similar sites using the patented Cool-Ox™ technology. Significant contaminant reductions have been achieved at nearly every site treated with concentrations of Cool-Ox™ reagents that are significantly lower than the stoichiometric ratios that would be expected to be necessary.

At nearly all sites treated with the Cool-Ox™ reagents, the proliferation of indigenous aerobic microbes increased by as much as six orders of magnitude. Upon visual inspection of samples collected from numerous sites, including sites similar to the Former Express Cleaners Site, observations indicated a decrease in contaminant concentrations in groundwater downgradient from the injection zones by orders of magnitude.

Cool-Ox™ Techology was implemented at a Wisconsin site where industrial processes impacted soil and groundwater on offsite properties. In-situ chemical oxidation was used to remediate impacted soil and groundwater. Comparison of pre- and post-treatment soil samples indicate that PCE concentrations decreased from greater than 500 mg/kg to less than 3 mg/kg.

Additional case studies for similar sites are included as Attachment B.

3.3 Proposed Closure Objectives

3.3.1 Groundwater Restoration Goals

Remedial goals for the groundwater remediation include reduction of concentration and mass of contaminants. Groundwater contamination beneath the Site is determined to be originating from several source areas, including the location of the former dry cleaning operations, an area outside the northeast corner of the building, and the area of the former dumpster at the northeast corner of the site.

As part of the remedial action activities, groundwater remediation will be conducted at each of these source areas in order to obtain case closure for the Site. Both the source control and the groundwater restoration components will be designed to minimize the concentration of the chlorinated compounds in groundwater and maintain compliance with the Enforcement Standard. It is anticipated that the groundwater injection will reduce the concentrations of groundwater contaminants by 80 to 90 percent within 30 days. The reaction will last in the subsurface for a total estimate of 90 days. Groundwater remediation followed by MNA for two years is expected to achieve a stable or shrinking groundwater plume. The estimated treatment area is provided as Figure 1.

3.3.2 Soil Remediation Goals

Soil remediation goals for the site include the reduction of concentration and mass of contaminants in shallow soils extending from the surface into the upper level of the water table. It is anticipated that one application of the in-situ chemical oxidation treatment, Cool-Ox™, will achieve the reduction of soil concentrations by 95 to 99 percent within the first 30 days. The reaction will last in the subsurface for a total estimate of 90 days. The estimated areal extent of soil blending is provided on Figure 2.

As provided above, remedial goals are a mass reduction of 95% in the groundwater and soils beneath the site. The targeted concentration is 3.1 ppm PCE in soils at the Site; the basis of this concentration is an order of magnitude below the regulatory limit of 31 ppm.

3.4 Estimated Remedial Action Schedule

The project schedule is controlled by the requirement for the completion of eight rounds of groundwater samples upon completion of remedial activities, which puts an estimate closure submittal date of *November 2017.*

The estimated schedule for the completion of on-site remedial action is three months. This includes the completion of in-situ chemical oxidation through injection and soil blending in *September and October.* Confirmation soil samples will be collected two to three months after conclusion of on-site remedial activities. Vapor intrusion assessment and site restoration will be completed during this timeframe (two to three months after conclusion of on-site remedial activities).

The proposed schedule is provided in detail in Section 6.

4. DESCRIPTION OF TASKS ASSOCIATED WITH PROPOSED REMEDY

Remedial tasks are described below. Staff and subcontractors will be properly trained and experienced with working at hazardous materials sites, as required. Activities will follow a detailed site Health and Safety Plan. During completion of the pilot test and remedial tasks, safety and security will be ensured through the installation of temporary fencing.

4.1 Groundwater Monitoring

Collection and analysis of groundwater from the existing monitoring well network will be completed in June, prior to the initiation of remedial activities. Groundwater samples will be submitted to a WDNR-certified laboratory for the analysis of VOCs (EPA Method 8260C).

Two wells will be removed as part of the remedial action and will be replaced; *these include MW3 and MW8.*

Based on an evaluation of historic groundwater sampling results, the abandonment of nine monitoring wells within the existing monitoring well network is recommended upon completion of pre-remedial groundwater sampling (estimated in August). *The proposed wells to be abandoned include: MW1, PZ1, MW2, MW4, MW5, MW7, MW11, MW13, and MW15 (Figure 3).* If approved by the WDNR, these wells will be properly abandoned and documented (in accordance with WAC NR141) prior to the first post-remedial quarterly groundwater sampling event *(estimated in November 2015).*

Upon completion of remedial activities, eight rounds of quarterly groundwater samples will be collected *from seven monitoring wells (MW3R, MW6, MW8R, MW9, MW10, MW12, and MW14)* and analyzed for VOCs (EPA Method 8260C). *A total of ten laboratory samples will be analyzed per round, including three quality control samples.*

4.2 In-Situ Chemical Oxidation – Groundwater Injection

Rationale for Selecting Treatment Area & Vertical Injection Interval: DTI has learned from conducting field applications at numerous sites with TCE and PCE that it is next to impossible to remediate groundwater so long as contaminants adsorbed to the soil matrix are present. Therefore, it is our primary objective to mitigate soil sources. Based upon this knowledge, DTI turned to the information contained in the site information sheet, soil borings and analytical data, in effort to determine the areal extent as well as the vertical treatment interval appropriate for this site and pursuant to the nuances of the *Cool-Ox®* technology.

Based upon the information provided and pursuant to the conversation between DTI and HEC, we have designed a remedy for the site as follows:

> ***Remedial methodology overview:*** *We propose to treat the contaminants in groundwater beneath the Site utilizing an in-situ injection methodology which will allow application of treatment directly into the soils beneath the water table to maximize effectiveness.*

Exemption grant: *The treatment of groundwater by injection will require an exemption permit to allow the injection of a remediation substance into groundwater. The costs to obtain the exemption are included within the cost estimate and specified as "permitting costs".*

Treatment areas: *The treatment areas are indicated on Figure 1. The total proposed treatment area is approximately 3,375 ft². The injection will treat the vertical interval of 8 feet to 14 feet bgs on the Former Express Cleaners property. Due to the detection of contaminants within shallow soils, the proposed injection on the Bay Drive Property will extend from the ground surface to 14 feet bgs to ensure that any contamination in the area is addressed and to increase the beneficial indigenous aerobic microbes in this area. The area is estimated to contain 750 cubic yards and treatment is anticipated to include 94 injection points.*

Cool-Ox® Application: *Utilizing a direct push probe, the injection tool will be placed into the subsurface at maximum depth. The treatment will be released into the soils beneath the groundwater as the probe is removed, allowing maximum contact with contaminated material. It is anticipated that a total of 4512 gallons of Cool-Ox® will be injected in the two treatment areas over the course of 4 days.*

Once the site is free of contaminants there are no traceable reagent by-products thus, the *Cool-Ox®* Technology is the only truly "green technology" available to date.

4.3 In-Situ Chemical Oxidation – Soil Blending

Rationale for Selecting Treatment Area & Soil Blending Interval: DTI has learned from conducting field applications at numerous sites with TCE and PCE that it is next to impossible to remediate groundwater so long as contaminants adsorbed to the soil matrix are present. Therefore, it is our primary objective to mitigate soil sources as the first phase of overall site remediation, including areas of the highest known concentrations either in the boring logs or contaminant tables which almost always signal the presence of a source of contaminants sufficient to adversely impact groundwater. It should also be noted that these remain immobile and unaffected by fluctuations in groundwater levels. Based upon this knowledge, DTI turned to the information contained in the site information sheet, soil borings and analytical data, in effort to determine the areal extent as well as the vertical treatment interval appropriate for this site and pursuant to the nuances of the *Cool-Ox®* technology.

Based upon the information provided and pursuant to the conversation between DTI and HEC, we have designed a remedy for the site as follows:

Remedial methodology overview: *We propose to treat the contaminants beneath the Site utilizing an in-situ soil blending methodology, using a backhoe, which has been used successfully by DET at other sites at the subject depths, which will distribute Cool-Ox® directly into the soil to maximize effectiveness. This method will require the demolition and removal of the building, concrete slab, driveway and parking lot along the northern portion of the Site in order to access the contaminated soil. It is understood that the utilities will be disconnected as*

part of the demolition of the building (NOTE: disconnection of utilities is assumed to occur during building demolition and is not included as part of this proposal).

Removal of concrete slab and utilities: *The entire concrete slab that existed beneath the former drycleaning operation will be removed and disposed of. Utilities will be removed during soil blending activities, which will be scheduled during the time of the removal of the concrete slab (NOTE: tasks for concrete slab and utility removal area included as part of this proposal). It is anticipated that a contained-out determination will be provided from the WDNR for disposal of slab material as core samples collected from the slab are contaminated to a lesser degree than the health-based standards used for contained out decisions on media contaminated with the same compounds. To minimize the amount of debris requiring a contained out decision, the slab debris will be segregated into 'known contaminated', 'presumed contaminated until testing proves otherwise', and 'presumed not contaminated'. Sampling will be performed on the two former categories for use by DNR in making the contained out determination, upon our request. (NOTE: costs for the contained-out determination are not included).*

Treatment areas: *The proposed treatment areas are approximately 6,550 ft² (see Figure 2). The area beneath the northern portion of the building is estimated to be 3950 square feet with a soil blending interval from the ground surface to 5 feet bgs. The second rectangular area extends from the northern end of the building along the utility corridor to Main Street; this area is estimated to be 2600 square feet with a vertical soil blending interval from the surface to 8 feet bgs. Total, these two areas contain an estimated 1501 cubic yards.*

Cool-Ox® Application: *Once excavation equipment is positioned in the areas noted on Figure 2, soil blending activities will be conducted to the depths specified above. Soils will be accessed and blended with the remedial treatment. Approximately 10 gallons of Cool-Ox® will be blended directly into each cubic yard of soil. It is anticipated that approximately 15000 gallons of Cool-Ox® will be blended into the soil in these areas over the course of 4 days.*

Once the site is free of contaminants there are no traceable reagent by-products thus, the *Cool-Ox®* Technology is the only truly "green technology" available to date.

4.4 Confirmation Soil Sampling

Confirmation soil samples will be collected 8 to12 weeks after remedial action is completed. It is estimated that twenty shallow soil borings will be advanced and samples collected from previous areas of significant contamination.

A total of 20 samples will be submitted to a DNR-certified laboratory for analysis of VOCs (EPA Method 8260C). Including QA/QC samples, a total of 23 soil samples will be analyzed for confirmation soil sampling.

4.5 Vapor Intrusion Assessment

It has been documented that no exposure pathways exist for the movement of contamination offsite, other than potential migration of groundwater contamination to utility corridors which will be corrected through the proposed remedial action, and the potential for vapor migration offsite which will be evaluated as part of the proposed effort described herein.

The closest water supply well is a water supply well for a local day care center located more than one mile from the Site. Racine Waterworks uses surface water from Lake Michigan as the source of drinking water; contaminant discharges to surface waters have not been documented from the Site. There are no private wells within 1200 feet of the property boundary.

Vapor migration of chlorinated solvents to buildings impacted by contaminant plumes will be evaluated as part of the Remedial Action Plan for the Site to determine whether this exposure pathway is "complete". Soil gas samples will be collected and evaluated based on the protocols established in the WDNR publication "Assessing Vapor Intrusion at Remediation and Redevelopment Sites in Wisconsin" (WDNR, RR-800, July 2012).

Results of sub-slab vapor concentrations collected beneath the existing building have determined that further site development should include the installation of passive or active venting to mitigate contaminant vapors. *In addition, sub-slab soil gas sampling will be completed within the structure located north of the Site, to ensure that chlorinated solvents have not migrated to the building and are impacting indoor air.*

Soil gas samples *and sub-slab samples* will be collected according to WDNR protocol and submitted to the Wisconsin State Laboratory of Hygiene for the analysis of VOCs; specifically, the "dry cleaner list" which includes PCE, TCE, cis- and trans-DCE, and Vinyl Chloride (Method TO15). *It is estimated that two soil gas samples will be collected from the northern property boundary of the Site, and three subslab vapor samples.* Sample results will be evaluated and compared with WDNR's vapor intrusion guidance.

4.6 Pilot Test

A pilot test will be conducted to demonstrate the effectiveness of the recommended remedial treatment of soil and groundwater at the Site prior to full-scale implementation of the remedial action plan.

The pilot test is proposed to be conducted July 24, 2015, and will include the following:

Areas for remediation: *The area proposed for the pilot study is located at the northeast corner of the former drycleaning facility, directly east of the building structure. The treatment area will be located in between the building and the gas line which extends north to south in the center of the driveway along the eastern edge of the Site.*

Implementation: *The pilot test will incorporate the same actions as the full scale remedial soil blending option. An area five feet square will be accessed and soils treated to a depth of five feet bgs. The upper two feet of soil will be removed and set aside on plastic sheeting for replacement. Cool-Ox reagent will be placed in the hole and mixed with in-situ soils. Then the remaining soil from the plastic sheeting will be replaced and mixed with additional reagent. Upon completion of soil blending of impacted soils, the area will be covered with plastic and snow fencing will be placed around the treatment area.*

Analysis & Interpretation: *Hand auger samples of soils in the pilot study area will be collected from the treatment area and analyzed to determine the effectiveness of the remedial treatment. Soil samples will be submitted for laboratory analysis of chlorinated VOCs (CVOCs). It is estimated that two soil samples will be collected and submitted over the course of one week and again two weeks after the pilot study is completed, for a total of four soil samples analyzed. Soil sample results will be evaluated and compared with former concentrations detected in site soils to determine effectiveness.*

5. ESTIMATED COSTS

Cost estimates for the remedial action at the Former Express Cleaners Site are provided on the attached EXCEL SPREADSHEET as well as DNR Form 4400-212.

ESTIMATED COSTS FOR FORMER EXPRESS CLEANERS REMEDIAL ACTION UTILIZING COOL-OX™ INJECTION AND SOIL BLENDING TECHNOLOGY

	Huntoon Environmental				DeepEarth Technologies	Laboratory		Drilling Contractor		Site Work Contractor
	geologist $100/hr	clerical $40/hr	expenses & fees	estimated costs	per activity	# samples	$/sample	per mobe		per activity
REMEDIAL ACTION AND SITE CLOSURE TASKS										
PILOT TEST										
on-site remedial soil blending	10			1000	10,750					
post-remedial confirmation soil sampling (2 rounds)	5			500			250			
proj mgmt, analysis, interpretation and reporting	5			500						
GROUNDWATER AND SOIL MONITORING										
project management/client communication	24			2400						
regulatory communication/meetings	10			1000						
administrative support		20		800						
project oversight	25			2500						
health and safety plan preparation	8			800						
one round of pre-remedial VOC groundwater monitoring	10		1050	1000		15+3 QA	1400			
well abandonment (9 wells)	20			2000				9 abandoned	2500	
well replacement (2 wells)	8			800				2 installed	3000	
post-remedial soil monitoring for VOCs	24			2400		20	1400		2000	
eight rounds post-remedial VOC groundwater monitoring	80		8400	8000		8 X 20	11,200			
disposal of investigation derived waste (IDW)	4		500	400						
laboratory data quality control evaluation	15			1500						
REMEDIAL ACTION - SOIL BLENDING AND INJECTION										
project management/client communication	32			3200						
regulatory communication/meetings	15			1500						
administrative support		5		200						
project oversight (	20			2000						
remedial action workplan	8			800						
WDNR permit fees for remedial injection[DERF INELIGIBLE]			700	700						
slab and utility removal/slab coring	20			2000						7500
injection utilizing Cool-OxTM technology	20			2000	70,000					
soil blending utilizing Cool-Ox™ technology	40			4000	118,000					
securing of site (temporary fencing)										1500
site restoration										1000
VAPOR INTRUSION REMEDY										
project management/client communication	10			1000						
regulatory communication/meetings	10			1000						
project oversight	5			500						
vapor assessment / subslab north boundary	5			500		4	600	2	1800	
REPORTING										
project management/client communication	4			400						
administrative support		10		400						
project oversight	20			2000						
data evaluation	10			1000						
WDNR report review fee[DERF INELIGIBLE]			350	350						
remedial action report preparation	40	12		4480						
SITE CLOSURE										
project management/client communication	20			2000						
regulatory communication/meetings	15			1500						
administrative support		15		600						
project oversight	30			3000						
GIS registry package preparation	12	10		1600						
WDNR GIS fees (soil and groundwater)[DERF INELIGIBLE]			650	650						
WDNR closure request[DERF INELIGIBLE]			1050	1050						
closure request submittal	15	5		1700						
final well abandonment and documentation	8	4		960				6 wells	2000	
DERF reporting and reimbursement request	12	10		1600						
shaded = costs not DERF program eligible					remedial		groundwater		well install and	slab and utility
NOTE: costs are based on a good faith estimate of the project tasks as stated in the attached proposal.	619	91	$ 12,700	$ 68,290	action $ 198,750		and soil analysis $ 14,850		abandonment $ 11,300	removal $ 10,000

TOTAL PROJECT COSTS = $ 315,890

Site Name: *Racine Former Express Cleaners*
BRRTS #: *02-52-547631*
Type of Action: *Remedial Action*

Dry Cleaner Environmental Response Program
Reimbursement Cost Detail Linking Spreadsheet Form 4400-214D (R 08/12)

TASKS	BUDGET				INVOICES						DERF COST BREAKOUT (this claim)									
Bid / Budgeted Description	Bid / Budgeted Amount	INSERT	Total Approved Budget	Previous Claims (If applicable)	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	*Provider Name, Invoice #, Billing Date*	INSERT	Total Invoiced Costs	A Soil Investigation	B Soil Remediation	C Groundwater Investigation	D Groundwater Remediation	E Air/Vapor Investigation	F Air/Vapor Remediation	G Lab & Other Analysis	H Miscellaneous Costs	Budget Remaining Use (-) to indicate cost over-run	% Task Complete, Remarks
Consultant Costs																				
Pilot test		$ -	$ -							$ -									$ -	Task % Complete
Project Management/Report	$ 500.00		$ 500.00																	
Field oversight, sampling	$ 1,500.00		$ 1,500.00							$ -									$ 1,500.00	
Soil and Groundwater Sampling										$ -									$ -	
Project Management	$ 2,400.00		$ 2,400.00							$ -									$ 2,400.00	
Regulatory communications/meetings	$ 1,000.00		$ 1,000.00							$ -									$ 1,000.00	
Administrative support	$ 800.00		$ 800.00							$ -									$ 800.00	
Project oversight	$ 2,500.00		$ 2,500.00							$ -									$ 2,500.00	
HASP preparation	$ 800.00		$ 800.00							$ -									$ 800.00	
Pre-remedial groundwater sampling	$ 1,000.00		$ 1,000.00							$ -									$ 1,000.00	
Well abandonment	$ 2,000.00		$ 2,000.00																	
Well replacement	$ 800.00		$ 800.00																	
Post-remedial soil sampling	$ 2,400.00		$ 2,400.00																	
Post-remedial groundwater sampling	$ 8,000.00		$ 8,000.00																	
Disposal of investigative waste	$ 400.00		$ 400.00																	
Data quality control review	$ 1,500.00		$ 1,500.00																	
Remediation																				
Project management	$ 3,200.00		$ 3,200.00																	
Regulatory communications/meetings	$ 1,500.00		$ 1,500.00																	
Administrative support	$ 200.00		$ 200.00																	
Project oversight	$ 2,000.00		$ 2,000.00																	
Workplan preparation	$ 800.00		$ 800.00																	
Slab and utility removal	$ 2,000.00		$ 2,000.00																	
Injection	$ 2,000.00		$ 2,000.00																	
Soil blending	$ 4,000.00		$ 4,000.00																	
Vapor Intrusion Assessment			$ -																	
Project Management	$ 1,000.00		$ 1,000.00																	
Regulatory communications/meetings	$ 1,000.00		$ 1,000.00																	
Project oversight	$ 500.00		$ 500.00																	
Sample collection	$ 500.00		$ 500.00																	
Reporting																				
Project Management	$ 400.00		$ 400.00																	
Administrative support	$ 880.00		$ 880.00																	
Project oversight & data evaluation	$ 3,000.00		$ 3,000.00																	
Remedial action report preparation	$ 4,000.00		$ 4,000.00																	
Site Closure																				
Project Management	$ 2,000.00		$ 2,000.00																	
Regulatory communications/meetings	$ 1,500.00		$ 1,500.00																	
Administrative support	$ 1,760.00		$ 1,760.00																	
Project oversight/GIS package/documentation	$ 5,000.00		$ 5,000.00							$ -									$ 5,000.00	
Closure request submittal/DERF reporting	$ 2,700.00		$ 2,700.00							$ -									$ 2,700.00	
Consultant Cost Total	$ 65,540.00	$ -	$ 65,540.00	$ -						$ -									$ 17,700.00	
Sub-Contractor Costs																				
Remedial Contractor (incl. pilot test)	$ 198,750.00		$ 198,750.00							$ -									$ 198,750.00	
Laboratory	$ 14,850.00		$ 14,850.00							$ -									$ 14,850.00	
Drilling Contractor	$ 11,300.00		$ 11,300.00							$ -									$ 11,300.00	
Contractor for slab demolition	$ 7,500.00		$ 7,500.00							$ -									$ 7,500.00	
Contractor for site restoration	$ 1,000.00		$ 1,000.00																	
Contractor for temporary fencing	$ 1,500.00		$ 1,500.00							$ -									$ 1,500.00	
Waste disposal	$ 500.00		$ 500.00							$ -									$ 500.00	
Equipment rental	$ 9,950.00		$ 9,950.00							$ -									$ 9,950.00	
Sub-Contractor Cost Total	$ 245,350.00	$ -	$ 245,350.00	$ -						$ -									$ 244,350.00	
DERF ELIGIBLE SUB-TOTALS	$ 310,890.00	$ -	$ 310,890.00	$ -	$ -	$ -	$ -	$ -	$-	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 262,050.00	

Non-DERF Eligible Expenses									
Injection permit fees								$ 700.00	
WDNR review fees								$ 350.00	
GIS fee								$ 650.00	
WDNR closure request								$ 1,050.00	
Non-DERF Cost Total		$ -	$ -	$ -	$ -	$ -		$ 2,750.00	
INVOICE GRAND TOTAL		$ -	$ -	$ -	$ -	$ -	##	$ 2,750.00	

Total DERF Eligible Costs This Claim $ -

6. PROPOSED SCHEDULE

Assuming a contract is signed in the *second half of July* 2015, the following schedule is proposed *(note: schedule has been revised as of July 14th, 2015):*

PROJECT MANAGEMENT: Project management will continue throughout the duration of the project and will include consistent communication with the client, regulatory discussions and meetings with the WDNR, and oversight of all project tasks.

PILOT STUDY: *A pilot will be completed July 24, 2015 to demonstrate effectiveness.*

GROUNDWATER MONITORING AND WELL ABANDONMENT: *An initial round of* groundwater samples will be collected through low flow sampling technique from the existing monitoring well network in *August.* Laboratory results will be evaluated and selected monitoring wells will be abandoned prior to the *November* sampling event. Eight quarters of groundwater monitoring will be conducted, to be completed in *November* 2017. Results will be submitted to WDNR upon receipt and after completion of data evaluation and QA/QC.

REMEDIAL ACTION: In-situ chemical oxidation tasks will extend over three weeks in *September and October 2015*, with completion of on-site remedial activities to be completed *in October 2015.*

SOIL MONITORING: Confirmation soil samples will be collected from the area of concern in *October and November 2015.* Soil samples will be collected from soil above the water table at twenty (20) locations. *A total of 23 samples* will be submitted for laboratory analysis of VOCs.

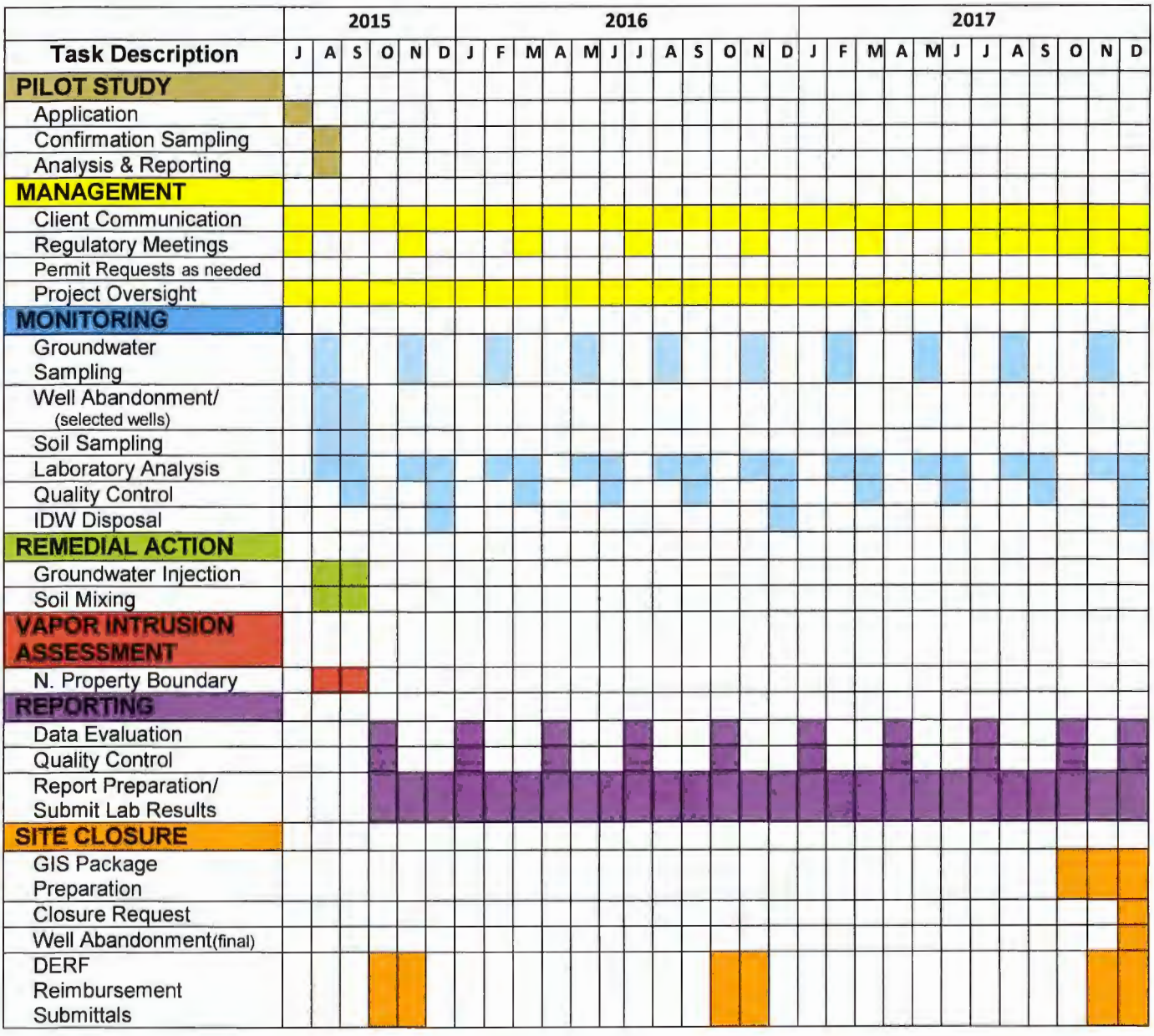
VAPOR INTRUSION ASSESSMENT: Soil vapor will be collected at the northern boundary of the Site to evaluate the potential for migration of potentially hazardous vapors offsite during well abandonment activities in September 2015. Three (3) samples are proposed to be collected and submitted for laboratory analysis of VOCs. *Contingency costs are also provided for the completion of sub-slab vapor sampling on the property directly north of the Site. As recommended in the WDNR guidance (PUB-RR-800, December 2010), three sub-slab samples will be collected and analyzed for CVOCs.*

REPORTING: Report submittals will be prepared throughout the duration of the project and will include reporting of remedial action results and confirmation sampling, data analysis and quality control, and laboratory results upon completion of quarterly sampling.

WDNR CLOSURE SUBMITTAL: Upon completion of remedial action, documentation of effectiveness, and eight rounds of groundwater sampling, a closure submittal and GIS Registry Package will be submitted for the site.

DERF REIMBURSEMENT: Reimbursement for applicable costs will be submitted to the WDNR Dry Cleaner Environmental Response Fund (DERF) Program. Costs will be submitted for reimbursement at various steps throughout the completion of the remedial action project utilizing the Reimbursement Cost Detail Worksheet (WNDR Form 4400-214D).

PROPOSED SCHEDULE
FOR REMEDIAL ACTION TASKS
Former Express Cleaners Site, Racine, Wisconsin



7. ASSUMPTIONS

As provided in the RFP, the following assumptions are understood and were considered in the preparation of this proposal for remedial action implementation at the Former Express Cleaners site in Racine, Wisconsin:

- The site is vacant and will be made available for remedial action activities.
- Upon completion of remediation activities, redevelopment will occur on both the Main Street property (Former Express Cleaners site to be redeveloped for commercial use and zoned as Commercial Shopping District) and the North Bay Drive Property (Former Gardens to be redeveloped for commercial use and zoned Office/Institutional).
- If concentrations of foundation elements are not higher than the 'contained out' values for contaminated soil, the contaminated concrete can be disposed of in a solid waste landfill as non-hazardous waste.
- As demolition of the building and slab is determined to be necessary to complete remediation of the site, the superstruction of the building at the Former Express Cleaners site will be demolished by others and costs are not assumed as part of this proposal; removal and disposal of the concrete slab is included herein.
- Utilities will be disconnected and capped at the property boundary.

In addition, based on the RFP, we understand the following:

- For purposes of achieving soil goals, samples collected beneath the water table are not to be considered to represent soil conditions, but are considered a result of groundwater conditions.

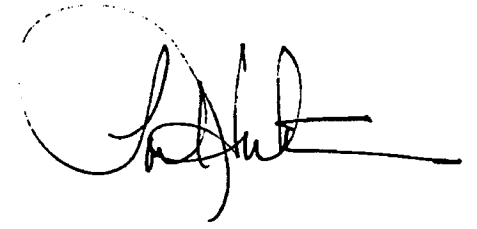
8. CERTIFICATION STATEMENTS

Per requirements of Chapter NR 169.23(3)(b) WAC, I certify that the project team of Huntoon Environmental and DeepEarth Technologies meet the following:

- The team is fully informed of the aspects of the project scope and objectives, and has the expertise to analyze all remedial alternatives and to design the most suitable response action for the Site.
- The team can provide the necessary staff and facilities for all phases of the remedial action planning, design, construction and operation.
- The team will provide qualified technical reviewers to advise the owner and work toward the stated remedial goals.
- All services will be performed in an ethical, professional, timely manner.

In addition, the consultant and contract services will comply with chapter NR 169 of the Wisconsin Administrative Code (WAC), as well as the chapter NR 700 WAC rule series.

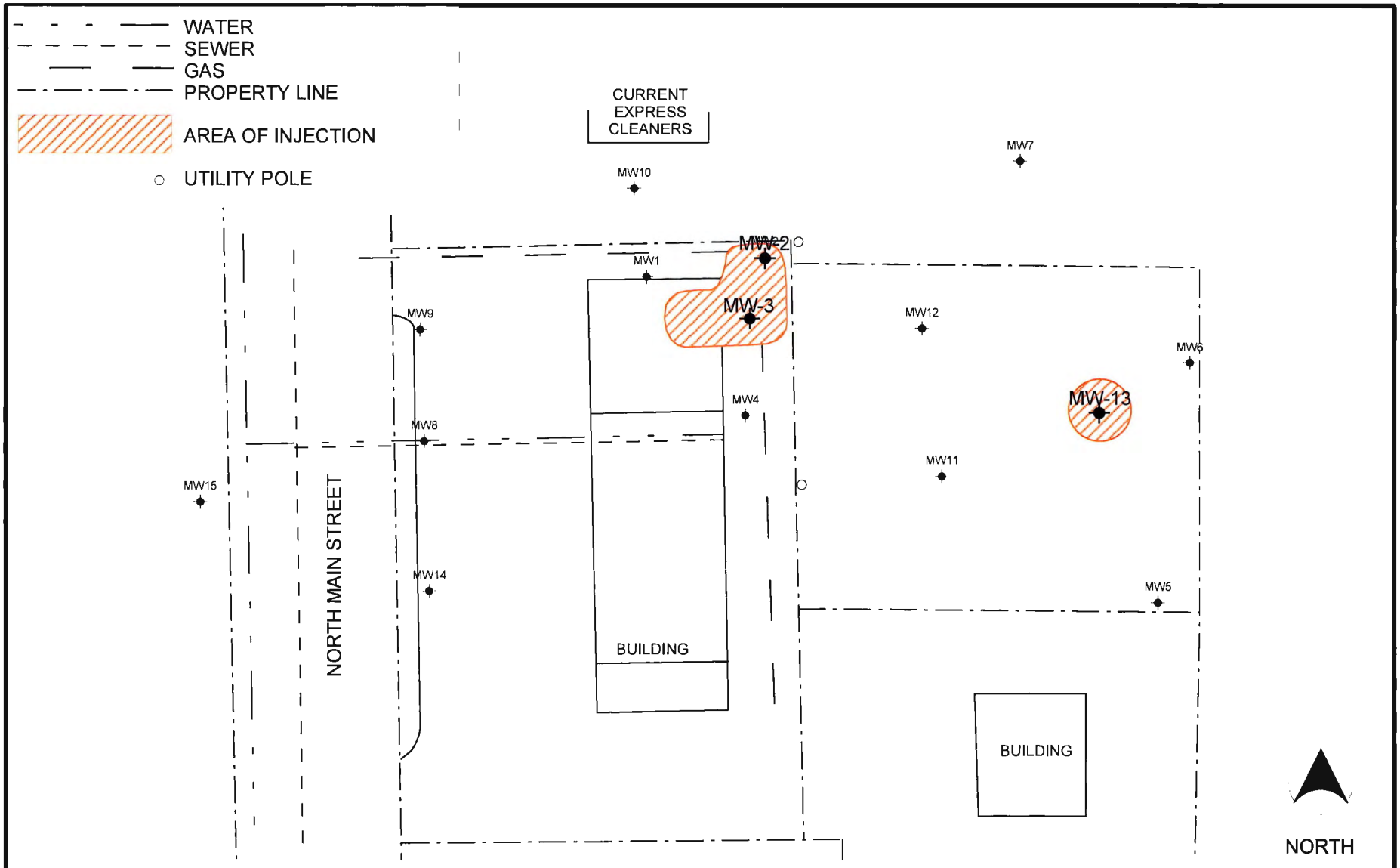
Respectfully submitted,



Lori C. Huntoon, PG
Professional Geologist #13-008

July 21, 2015
date certified

FIGURE 1 – Proposed Soil/Groundwater Injection Areas



Huntoon Environmental Consulting, LLC

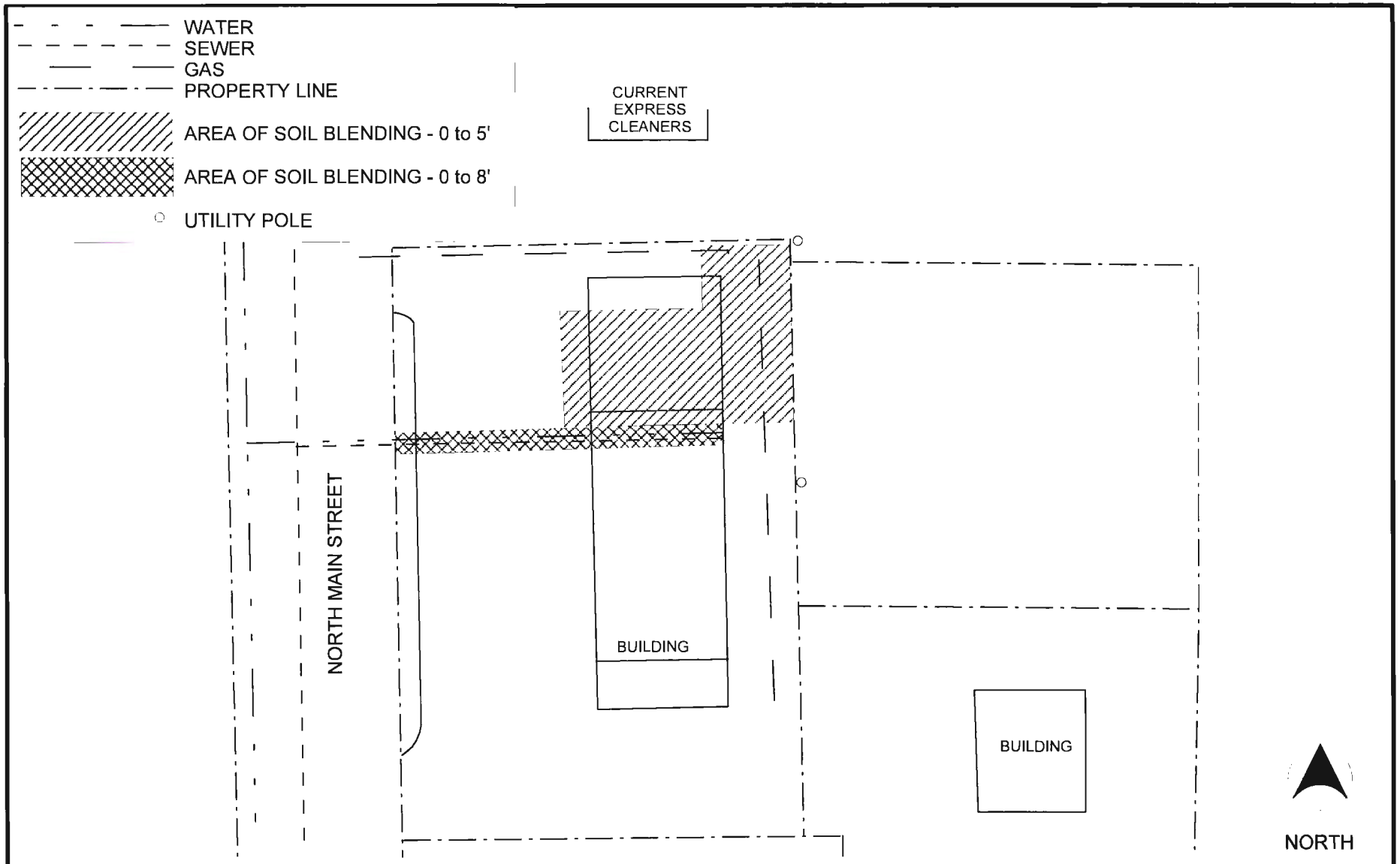
EHRLICH FAMILY LIMITED PARTNERSHIP
FORMER EXPRESS CLEANERS
RACINE, WISCONSIN
SOIL/GROUNDWATER INJECTION AREA

FIGURE 1

DRAWN BY	PROJ. No.	DATE	FILE
LH	PROPOSAL	28 MAY 15	INJECT

FIGURE 2

FIGURE 2 – Proposed Remedial Action Areas



Huntoon Environmental Consulting, LLC

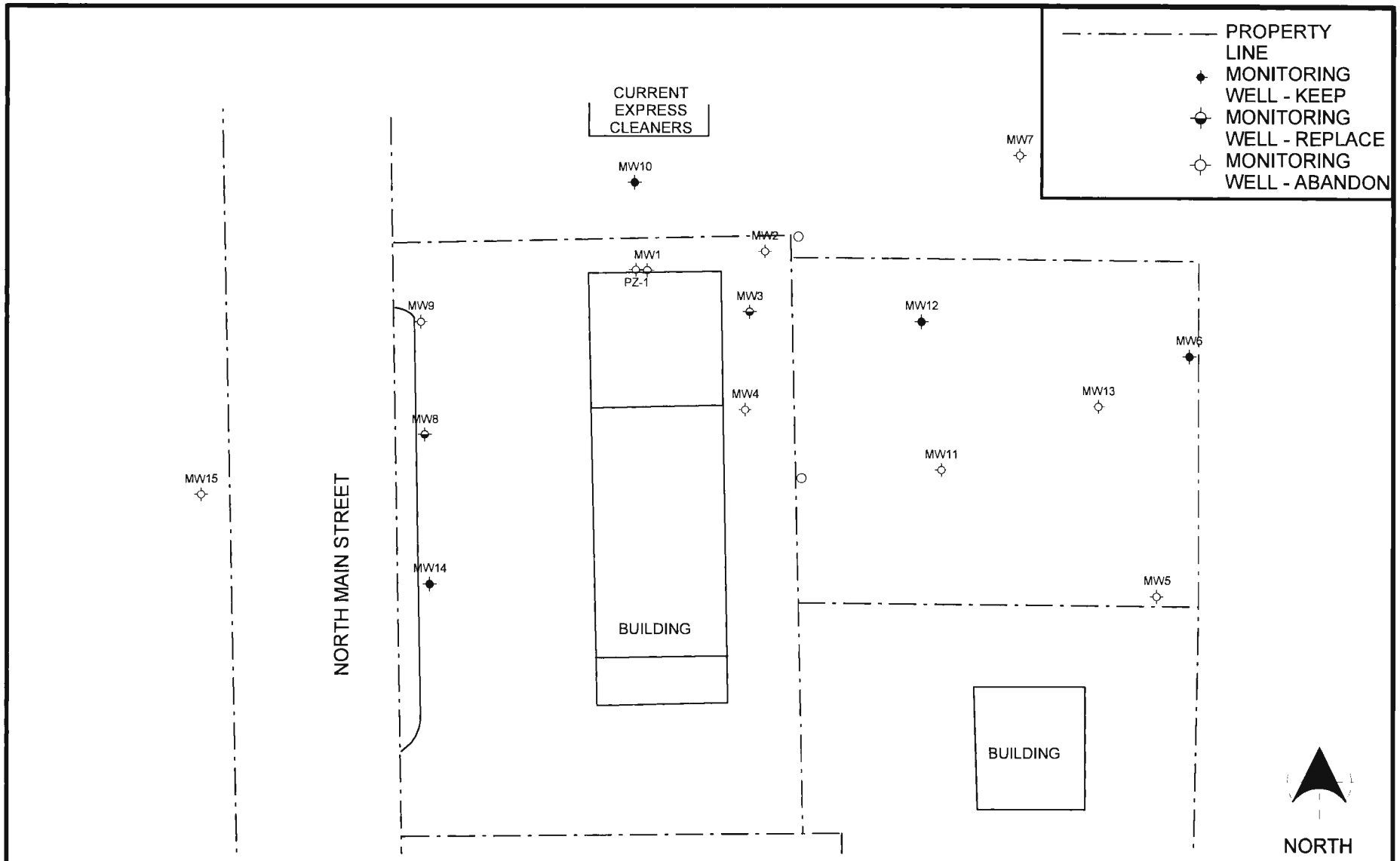
EHRLICH FAMILY LIMITED PARTNERSHIP
FORMER EXPRESS CLEANERS
RACINE, WISCONSIN
SOIL BLENDING AREA

FIGURE 2

DRAWN BY	PROJ. No.	DATE	FILE
LH	PROPOSAL	28 MAY 15	BLENDING

FIGURE 3

FIGURE 3 – Proposed Remedial Action Groundwater Monitoring Network



Huntoon Environmental Consulting, LLC

EHRLICH FAMILY LIMITED PARTNERSHIP
FORMER EXPRESS CLEANERS
RACINE, WISCONSIN
MONITORING WELLS

FIGURE 3

DRAWN BY	PROJ. No.	DATE	FILE
RN	10-105	28 JAN 15	WELL LOC

PF36039

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 05/29/2015

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.

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 such endorsement(s).

PRODUCER

John Wickhem Agency
PO Box 1500
1504 N. Randall Ave.
Janesville, WI 53547/53545

CONTACT NAME: JOHN WICKHEM
PHONE (A/C, No, Ext): 608-752-6030 FAX (A/C, No): 608-752-6992
E-MAIL ADDRESS: john.wickhem@wickheminsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: ROCKHILL INSURANCE COMPANY	
INSURER B:	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED
Huntoon Environmental Consulting LLC
c/o Lori Huntoon
3909 E Cty Rd J
BELOIT WI 53511

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$
	☐ COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$
	☐ ☐ CLAIMS-MADE ☐ OCCUR						MED EXP (Any one person)	$
							PERSONAL & ADV INJURY	$
							GENERAL AGGREGATE	$
	GEN'L AGGREGATE LIMIT APPLIES PER:						PRODUCTS - COMP/OP AGG	$
	☐ POLICY ☐ PRO-JECT ☐ LOC							$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$
	☐ ANY AUTO						BODILY INJURY (Per person)	$
	☐ ALL OWNED AUTOS ☐ SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	☐ HIRED AUTOS ☐ NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	☐ UMBRELLA LIAB ☐ OCCUR						EACH OCCURRENCE	$
	☐ EXCESS LIAB ☐ CLAIMS-MADE						AGGREGATE	$
	☐ DED ☐ RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						☐ WC STATU-TORY LIMITS ☐ OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ (Mandatory in NH)	N/A					E.L. EACH ACCIDENT	$
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$
							E.L. DISEASE - POLICY LIMIT	$
A	CPL & E&O $1,000,000 EA. CL. $2,000,000 AGG			POL.# ENVP013549-00	05/28/2015	05/28/2016	$2,000,000 POL. AGG	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)
CONTRACTORS POLLUTION LIAB. (CPL) OCCURRENCE
PROFESSIONAL LIABILITY (E&O) Consulting (Environmental)
ROCKHILL INSURANCE COMPANY - RATED A-XII by A.M. Best

CERTIFICATE HOLDER

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
2300 N DR MARTIN LUTHER KING JR DRIVE
MILWAUKEE WI 53212

CANCELLATION

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

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 05/28/2015

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.

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 such endorsement(s).

PRODUCER

John Wickhem Agency
1504 N Randall Avenue
PO Box 1500
Janesville, WI 53547

CONTACT NAME: Wickhem, John B.
PHONE (A/C, No, Ext): 608-752-6030 **FAX (A/C, No):** 608-752-6992
E-MAIL ADDRESS: john.wickhem@wickheminsurance.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A: Secura Insurance Companies (AM Best-A Rate)	
INSURER B: Secura Insurance Companies	
INSURER C:	
INSURER D:	
INSURER E:	
INSURER F:	

INSURED

Huntoon Environmental Consulting, LLC
3909 E County Road J
C/o Lori Huntoon
Beloit, WI 53511

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

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.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
B	GENERAL LIABILITY X COMMERCIAL GENERAL LIABILITY CLAIMS-MADE [X] OCCUR GEN'L AGGREGATE LIMIT APPLIES PER: POLICY PRO-JECT LOC			3238824	05/28/2015	05/28/2016	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$ 1,000,000 $ 100,000 $ 5,000 $ 1,000,000 $ 2,000,000 $ 2,000,000
	AUTOMOBILE LIABILITY ANY AUTO ALL OWNED AUTOS SCHEDULED AUTOS HIRED AUTOS NON-OWNED AUTOS						COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$ $ $ $
	UMBRELLA LIAB OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $						EACH OCCURRENCE AGGREGATE	$ $
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? Y/N [ ] N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						WC STATU-TORY LIMITS OTH-ER E.L EACH ACCIDENT E.L DISEASE - EA EMPLOYEE E.L DISEASE - POLICY LIMIT	$ $ $

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

Office

CERTIFICATE HOLDER

Wisconsin Department of Natural Resources
2300 N Dr. Martin Luther King Jr. Drive
Milwaukee, WI 53212

CANCELLATION

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

B. RELEVANT COOL-OX™ PROJECT SUCCESS STORIES

DeepEarth Technologies, Inc.

Cool-Ox™

CASE HISTORY©

Work Summary (Site History) ***CHS-0005 (Perchloroethylene)***

Probable off-site migration of dissolved perchloroethylene was the remedial action driver for this confidential client. Repeated releases of recycled perc over several years from a dry cleaning operation were complicated by the presence of smeared naphtha, along with oil and diesel range hydrocarbons. Action by the State required the property owner to address the problem immediately. It was concluded that chemical oxidation could provide the quickest most effective solution. Permanganate was ruled out because of the presence of hydrocarbons and Fenton peroxide was considered to reactive because much of the plume was located beneath the building. The recently developed Cool-Ox™ Technology was selected because of its effectiveness at treating mixed contaminants and its greater safety. Five weeks after completing injections of the sources, perc levels decreased to below residential levels for soil.

Project at a Glance

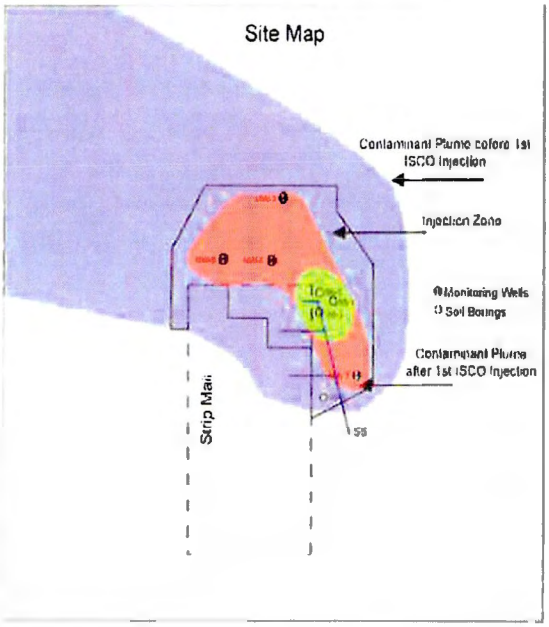
Site 0005 - Site Information

Type of site	Former Drycleaner
Contaminants	Recycled Perchloroethylene
Work Scope	Inject Oxidizer
Media Treated	Soil & Groundwater
Soil Type	Dense Clay over claystone
Groundwater Depth	14 fbgs
Remedial Objective	Locate and mitigate soil sources and reduce perc concentrations in GW

Site 0005 - Application Information

Technology Selected	Chemical Oxidation
Application Method	DPT Probe Rod
Area Treated	9,520 square feet
Vertical Interval	0 to 24 feet bgs = 24 feet
Injection Point (IP) Spacing	6 feet
Media Volume Treated	8,460 cubic yards
Number of Injection Points	265
Oxidizer Volume	29,700 gal
Oxidizer per IP	112 gal

Site Map



The green area on the site map depicts the extent of soil contaminants exceeding MCLs prior to the first Cool-Ox™ injection. During the injection work, free product was observed in several of the injection points in this area. However, post injection sampling data revealed that all soil contaminant concentrations had been reduced to levels below maximum concentrations for site closure. Groundwater (blue area prior to treatment) samples collected 18 months after the Cool-Ox™ injection, revealed that contaminant concentrations exceeding MCL closure levels had been reduced to the area depicted in red. During the injection work high concentrations of hydrocarbons (light oils) were also discovered. These were confined mainly to the green area on the Site Map.

Current Status

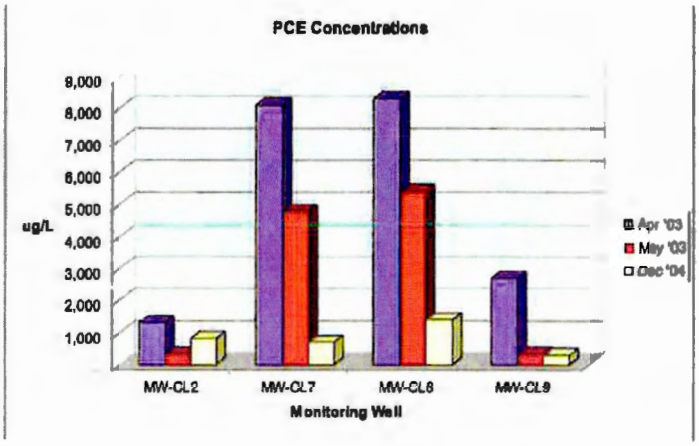
The Cool-Ox™ application successfully located all soil sources and reduced soil levels to less than those required by the state agency for residential standards. Groundwater is currently monitored on a quarterly basis. The site is under evaluation to ascertain future remedial needs if any.

Results

Site 0005- Contaminant Data-GW (PCE)

Groundwater Samples	Pre[1] Injection Samples	30 day Post Injection Samples	18 months Post Injection Samples
MW-CL2	1,300	340	830
MW-CL7	8,100	4,800	710
MW-CL8	8,300	5,400	1,400
MW-CL9	2,700	320	300

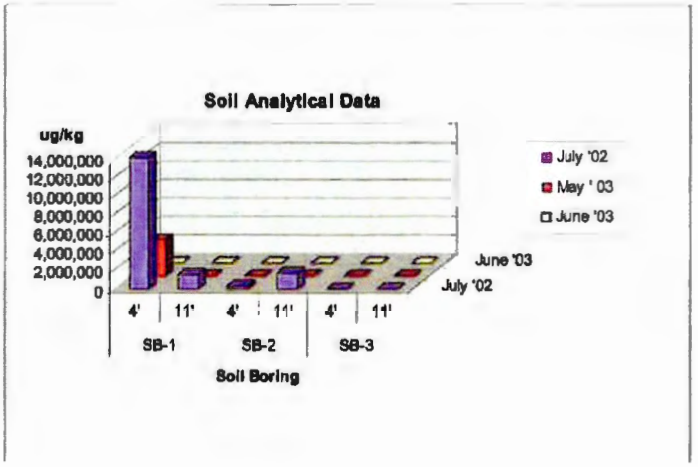
[1] All data reported in µg/L



Site 0005- Contaminant Data-Soil (PCE)

Soil Boring	Depth	07/09/02	05/28/03	06/24/03
SB-1	4'	14,000,000	3,800,000	1,700
	11"	1,500,000	2,900	320
SB-2	4'	280,000	NS	120
	11'	1,700,000	120	110
SB-3	4'	5,000	NS	59
	11'	1,100	0	12

[1] All data reported in µg/Kg



Contact: Jeff Citrone – Higgins & Associates, LLC

DeepEarth Technologies, Inc. – 12635 Kroll Drive – Alsip, IL 60803 – tech@deepearthtech.com (877) 266-5691

DeepEarth Technologies, Inc.

Cool-Ox™

CASE HISTORY©

Work Summary (Site History) ***CHS-0008 Chlorinated Compounds(TCA- DCA- DCA)***

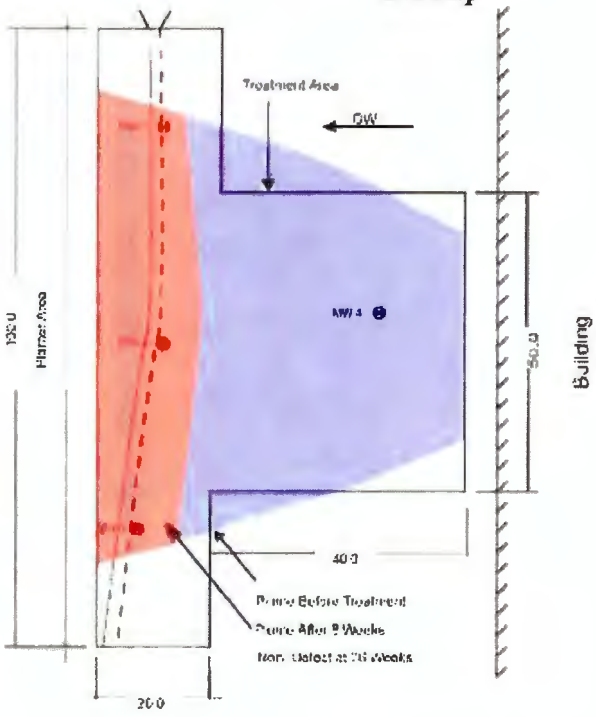
The sale of an industrial property was being held up because a groundwater plume contaminated with chlorinated VOCs required remediation. Compounding the problem was the specter that the plume was poised to migrate off-site. Because underground electrical cables were located in the plume, care had to be taken so that these utilities would be protected from physical and corrosive damage by any remedial process. Conventional technology such as SVE was ruled out because the plume was located in a wet, dense-clay strata 12 to 22 fbgs. Because of the consultants enjoyed success at treating vinyl chloride and DCE at a previous site, an in-situ chemical oxidation (ISCO) process based upon the controlled long-term in-situ generation of hydrogen peroxide was selected. The work was successful and the site was closed.

Project at a Glance

Site 0008 - Site Information

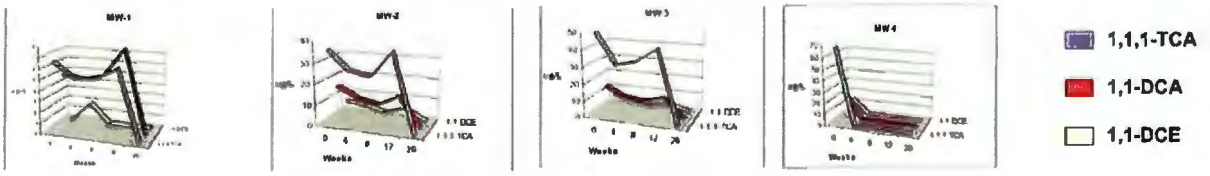
Type of site	Industrial Park
Contaminants	1,1,1-TCA, 1,1-DCA, 1,1-DCE
Work Scope	Inject chemox reagent
Media Treated	Groundwater
Soil Type	Wet Clay
Groundwater Depth	12 feet
Remedial Objective	Reduce contaminants to levels < MCLs

Site Map



Site 0008 - Application Information

Technology Selected	ISCO
Application Method	DPT Probe
Area Treated	4,000 sf
Vertical Interval	12 to 22 fbgs
Injection Point (IP) Spacing	5 feet
Media Volume Treated	1,480 cubic yards
Number of Injection Points	160
Oxidizer Volume	13,320 pounds
Oxidizer per IP	~83 pounds
Oxidizer per cubic yard	~9 pounds
Time to Complete	12 days



Current Status

Closed! A NFA letter was issued by the State of California

Results

Site 0008- Contaminant Data

Well	Week	Contaminants of Concern (µg/L)		
		1,1,1-TCA	1,1-DCA	1,1-DCE
MW-1	0	6.6	5.0	ND
	4	5.2	4.7	1.8
	8	5.3	5.2	ND
	12	6.4	7.8	ND
	26	ND	ND	ND
MW-2	0	36.0	16.0	5.9
	4	27.0	11.0	4.1
	8	25.0	8.9	2.1
	12	37.0	14.0	4.7
	26	ND	ND	ND
MW-3	0	50.0	15.0	6.1
	4	32.0	9.1	3.5
	8	35.0	8.0	1.3
	12	43.0	11.0	3.4
	26	ND	ND	ND
MW-4	0	68.7	24.4	13.4
	4	ND	ND	ND
	8	1.2	ND	ND
	12	0.9	ND	ND
	26	ND	ND	ND

Examination of the data collected approximately one month after the injection work was completed revealed that little or no change had occurred in the concentrations of the contaminants in monitoring wells MW-1, MW-2 and MW-3. However, dramatic reductions were observed in MW-4. Comparison of this data to previously treated sites impacted with the same contaminants, indicated that the expected results should have duplicated the reductions found in MW-4.

Review of Site Map shows an underground electrical utility corridor traversing the length of the injection area nearest the property line. It also reveals that monitoring wells MW-1, MW-2 and MW-3 are located in this corridor. During the injection work care was taken not to impact the underground electrical cables with the direct push equipment. Consequently, the two (2) rows of injection points on either side of the utility corridor were shifted away from the electrical lines to accommodate safety concerns. This inadvertently left the monitoring wells located in the utility corridor in an area not immediately impacted by the reagent. It was decided that because the groundwater was flowing perpendicular to the corridor, the reagent should eventually reach these monitoring wells. Data collected approximately six (6) months after the application indicated that the concentrations of contaminants in the wells had dropped below maximum contaminant levels (MCLs) for site closure.

DeepEarth Technologies, Inc.

Cool-Ox™

CASE HISTORY©

Work Summary (Site History) ***CHS-0010 Ethylene Dibromide (EDB & BTEX)***

Discovery of gasoline contaminated soil and a UST provided the criteria for acceptance for funding by the Florida Abandoned Tank Restoration Program. Initial remediation included removal of the 600 gallon UST and excavation of 45 tons of contaminated soil. Pilot testing ruled out DP extraction or SVE. Instead, the *Cool-Ox*™ Process, a Technology based upon the controlled production of hydrogen peroxide in-situ, was selected. This Technology had demonstrated its ability to eradicate mixed contaminants (hydrocarbons with halogens) and seemed ideal at this site where ethylenedibromide (EDB) was also present. Post remedial monitoring revealed 97% reduction in total BTEX with EDB reduced to non-detect.

Project at a Glance

Site 0010 - Site Information

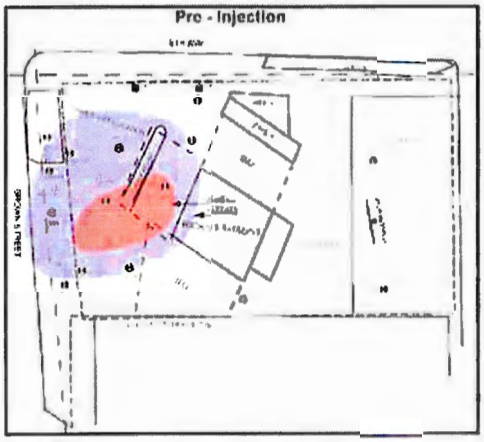
Type of site	Former Retail Gasoline Station
Location	Jackson County, Florida
Contaminants	EDB & BTEX
Work Scope	Inject *Cool-Ox*™ Reagent
Media Treated	Soil & Groundwater
Soil Type	Sandy Clay to Hard Clay, Limestone @ 40'
Groundwater Depth	11 fbgs
Remedial Objectives	1. Eliminate Soil Sources 2. Initiate GW Remediation

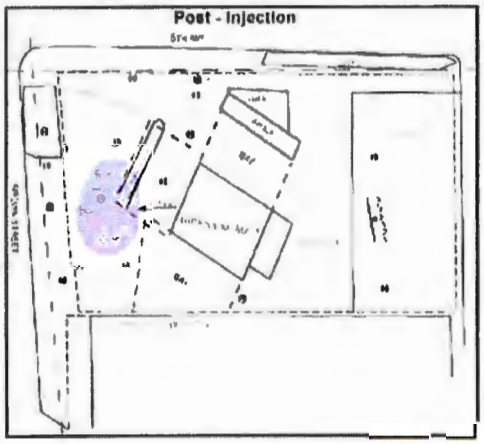
Site 0010 – Application Information

Technology Selected	*Cool-Ox*™ Process
Application Method	DPT Probe Rig
Area Treated	2,048 square Feet
Vertical Interval	10 to 40 feet bgs
Injection Point (IP) Spacing	7 feet
Media Volume Treated	2,276 cubic yards
Number of Injection Points	42
Cool-Ox™ Volume	11,400 gal
Cool-Ox™ per IP	271 gal

The blue area on the site map depicts the extent of the groundwater contaminant plume prior to the first *Cool-Ox*™ injection. Samples from replacement wells collected after the initial injection revealed that the contaminant plume had shrunk to a small area (see blue area on Post Injection Site Map).

Site Map





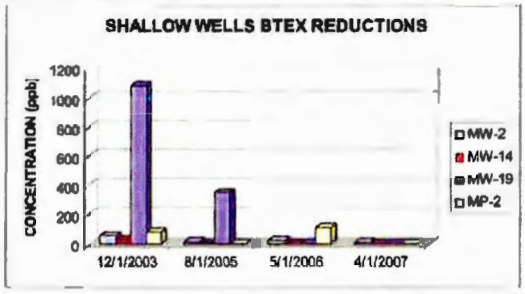
Current Status

As expected, EDB concentrations were reduced to non-detect. Because of the significant reductions in contaminant concentrations, the site was placed in Post Remedial Action Monitoring Status. Petroleum contaminant concentrations continue to decline as a function of the long-term sustained chemical oxidation and biologic mechanisms indicative of the Cool-Ox™ remedial Technology.

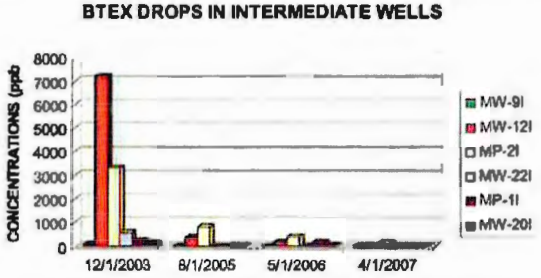
Results

Site 0010- Contaminant Data

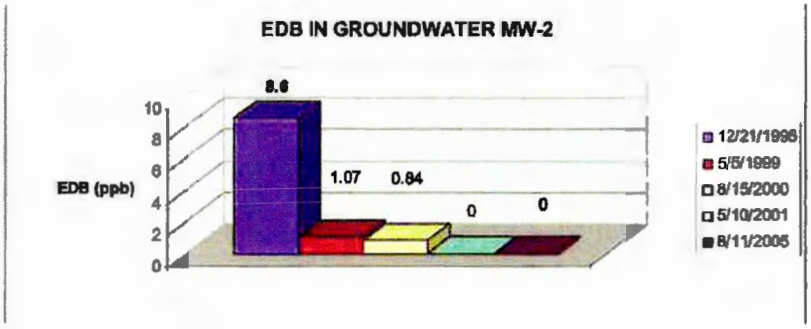
Date	MW-2	MW-14	MW-19	MP-2	AVG. Total BTEX
Dec-03	58	29	1086	84	314
Aug-05	15	5	352	4	94
May-06	25	1	<1	112	35
Apr-07	9	<1	<1	4	6.5



Date	MW-9I	MW-12I	MW-20I	MW-22I	MP-1I	MP-20I	AVG. Total BTEX
Dec-03	81	7207	140	560	220	3304	1919
Aug-05	3	383	2	2	2	813	201
May-06	10	202	15	2	192	401	137
Apr-07	0	14	0	<1	1	141	59



Date	12/21/95	5/5/1999	8/15/2000	5/10/2001	8/11/2005
EDB (ppb)	8.6	1.07	0.84	ND	ND



Client Contact: Alfie Nazario, P. E., AET, LLC, Pensacola, FL (850)471-2127

C. COMPANY SUMMARY: HUNTOON ENVIRONMENTAL CONSULTING, LLC

Huntoon Environmental Consulting, llc

Huntoon Environmental Consulting, llc was founded in February 2013 by Lori Huntoon, Professional Geologist (WI #13-008) to fill the need for highly technical assistance related to hydrogeologic issues within tight budgets and timeframes. An independent woman-owned consulting firm, Huntoon Environmental Consulting, llc has more flexibility and lower overhead expenses than the traditional engineering consulting firm, and has the advantage of providing the same types of services to clients within tight budgets and schedules. In addition to cost effective solutions, clients can be assured that they are always working directly with the decision maker in the firm, which allows for more direct and complete communication, resulting in efficiency and effectiveness.

Ms. Huntoon brings over twenty years of experience in environmental and sustainability consulting, regulatory oversight, education/training, and project management working for a variety of clients including municipalities, state and federal agencies, and industry. She has extensive knowledge regarding groundwater and soil contamination issues, and a broad range of experience managing large scale groundwater monitoring networks on RCRA/CERCLA/LUST/DERF projects, feasibility studies and remedial action plans. An excellent facilitator, she is available to assist with regulatory negotiations, in-house training, outreach programs, and strategic planning.

- **Oversight of Superfund Site Investigations**
- **Phase I/II Property Transaction Site Assessments**
- **Site Investigations involving a Variety of Contaminants**
- **Feasibility Studies and Alternatives Analysis**
- **Remediation of Metals-Contaminated Sites**
- **Development of Remedial Action Plans**
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Huntoon Environmental Consulting, llc
P.O. Box 259927 – Madison WI 53525
608-886-7245

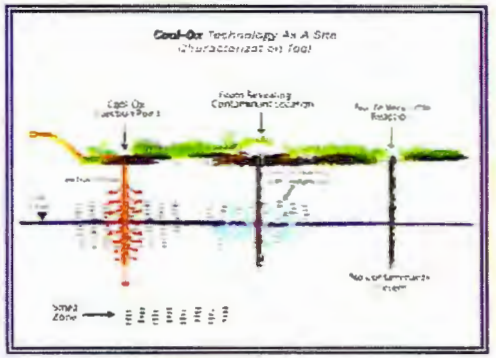
D. COMPANY SUMMARY: DEEPEARTH TECHNOLOGIES, INC.

Contaminants successfully treated by Cool-Ox™

BTEX
Coal Tars
Vinyl Chloride (DCE)
Chlorobenzenes
Polyaromatic Hydrocarbons
Creosote
Jet Fuel
Chlorinated Herbicides
Chlorinated Pesticides
Pentachlorophenol (PCP)
Chlorinated Solvents
PCBs
Dioxins
Pesticides
Home Heating Oil
Excavation Odor Control

Sites

Service Stations
Railroads
Pipelines
Agchem Formulators
Manufactured Gas Plants
Wood Treating
Military Bases
Dry Cleaners
Marine Bulk Terminals
Under Building Structures
Sediments
Mixed Plumes
Refineries
Steel Mills
Chemical Plants



Site Characterization Technique

"professional personnel teamed with cutting edge technology and superior equipment"

DeepEarth Technologies, Inc.
12635 South Kroll Dr.
Alsip, Il 60803
***Toll Free* 877-266-5691**

Chicago, IL
708-396-0100

Denver, CO
720-320-3198

Pensacola , Fl
850-206-3260

Houston, TX
281-546-3570

email us at:
tech@deepearthtech.com
www.deepearthtech.com

DeepEarth Technologies, Inc.

"the chem-ox professionals"

Cool-Ox™

"Controlled In-Situ Chemical Oxidation"

www.deepearthtech.com

Controlled In-Situ Chemical Oxidation

What is the Cool-Ox™ process?

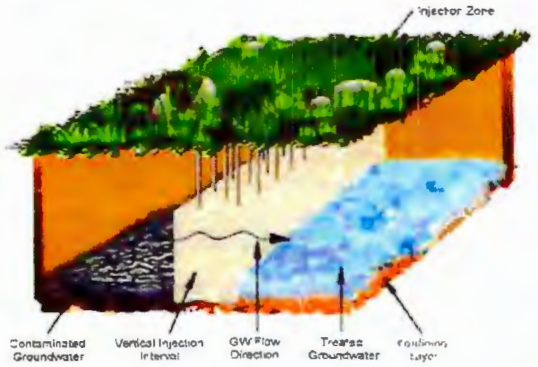
Cool-Ox™

Although hydrogen peroxide is widely accepted as the cleanest in-situ chemical oxidation compound, its application using the Fenton mechanism is dangerous and uncontrollable. The extremes in heat and pressure generated by the Fenton reaction can volatilize contaminants causing them to spread even further in soil and groundwater. Moreover, concentrated liquid hydrogen peroxide (>10%) has been responsible for numerous accidents.

DeepEarth Technologies, Inc., (DTI) has tamed the Fenton reaction by developing the patented *Cool-Ox™* Technology. By controlling the reaction, contaminant sources can be pin pointed quickly during the site injection work. DTI can then focus on the sources thus assuring maximum effect of the *Cool-Ox™* reagent. The photo above illustrates this forensic feature unique to *Cool-Ox™* Technology. The *Cool-Ox™* process is designed to address a broad variety of remedial challenges found at sites throughout the world.

The Cool-Ox™ Bio-Spunge™ Reactor

(Groundwater Defined Flow Application)



Wherever *Cool-Ox™* Technology has been applied, rapid growth of intrinsic aerobic microbes has been observed. This unique feature provides the one-two punch of combining abiotic chemical oxidation with bio-remediation. By engineering the accumulation of the microbial cells, they will produce extra-cellular polymeric substances (ECPS) that gives the appearance of live marine sponges. This matrix allows the groundwater to flow through providing a filtration mechanism entrapping contaminants and providing a carbon source for the microbes. This is the basis of the *Cool-Ox™ Bio-Spunge™ Reactor*.

"eliminates safety hazards for workers and sites"

Cool-Ox™ was specifically designed to exploit the advantages of hydrogen peroxide while eliminating the safety hazards associated with the product. The heat and acid hazards of the Fenton reaction have been eliminated. The optimum pH for the *Cool-Ox™* reaction is 8, thereby facilitating its use in limestone strata. *Cool-Ox™* aggressively destroys a wide variety of contaminants. It is particularly well suited for treating chlorophenolic and creosote compounds where the basic pH aids in desorbing these contaminants from the soil. Eliminating acid problems, heat and the need for injection wells makes *Cool-Ox™* the safest ISCO process available. **No Heat means No Ignition Source!**

"experience, quality equipment and injection technique are keys to successful site remediation"

DTI prides itself in the quality of its equipment and personnel. For fire safety, all DTI rigs and vehicles are equipped with diesel engines and maintained continuously. All personnel hold required OSHA training certificates.

The "Deep Shot Rig" Feeding Two Probes

"Free Product Treatment"

The Cool-Ox™ Process has been successfully employed to eliminate free product at several sites both in-situ and in excavations. The photo above depicts Cool-Ox™ reagents reacting with free product at a large hydrocarbon release. An additional feature of this application is the ability of the reagent to convert aromatics to non-odorus compounds thereby, eliminating rather than masking the problem.

Lori Huntoon, PG

Principal Hydrogeologist & Owner, Huntoon Environmental Consulting, llc
P.O. Box 259927, Madison WI 53725
608-886-7245 · lorihuntoonpg@gmail.com

QUALIFICATIONS

Professional geologist, certified educator and former regulator with over 25 years of progressive leadership experience providing technical program management for water and environment.

- **Consulting experience** includes oversight of site investigations including identification of potentially responsible parties, independent technical evaluations for environmental programs, farmland assessments, Phase I and Phase II real estate property transactions; groundwater resource assessment/evaluation/ protection; development of remedial action plans, wellhead protection surveys; regulatory negotiation; wetland determinations; water supply/conservation; litigation support; oversight of administrative/field staff, and training.

- **Regulatory program management** includes Section Chief of the technical section of the Wisconsin Petroleum Cleanup Fund overseeing 25 technical staff with projects exceeding an annual budget of $94M; represented the PECFA program at public hearings throughout the state, and contributed to administrative code revisions. As a consultant, worked on the development of environmental standards for industry; participated in the initial "integrated environmental plan for the Mexican-US Border" between USEPA and (then) SEDUE in 1992.

- **Project management** experience includes oversight of subcontractors and drilling crews; completion of field and reporting activities associated with groundwater contamination investigations and remediation programs, development of well head protection programs and siting of replacement water supply wells; regulatory compliance; and establishment of consistent objectives for municipal, state/federal, legal, and and industrial clients.

- **Drilling oversight** includes management of drilling programs, supervision of an environmental drilling crew; presentation of investigative results focused on groundwater sampling at multiple intervals utilizing dual-tube drilling technology; speaker at hands-on environmental drilling technology programs; and a broad range of experience managing large-scale groundwater monitoring networks for extensive and complex site investigations.

LICENSING & CERTIFICATIONS

Licensed Professional Geologist – State of Wisconsin #13-008, since 1997
Certified Ground Water Professional – National Ground Water Association, since 1991
Certified Secondary Science Teacher – State of Wisconsin, 2008
Certified English As a Second Language Teacher – State of Wisconsin, 2008

PROFESSIONAL EXPERIENCE

Owner & Principle Hydrogeologist February 2013 to present
Huntoon Environmental Consulting, llc, Wisconsin (formerly HydroGeoLOGIC Consulting, llc)
Logical approaches to environmental and sustainability solutions for communities, non-profit groups, law firms, government agencies, other consulting firms, and businesses. Assistance with technical reviews and litigation preparation. Grant writing and oversight of grant-funded programs, technical assistance with economic development projects, program oversight, strategic planning, marketing.

Section Chief, Wisconsin Petroleum Cleanup Fund · 1997 to 2004
State of Wisconsin Department of Commerce, Madison WI
Managed the technical section of Wisconsin's Petroleum Cleanup Fund, including an experienced staff of 25 hydrogeologists and program assistants at five locations throughout the state. Conducted public hearings, facilitated meetings, coordinated interagency training, participated in preparation of interagency memorandums, assisted with administrative rule changes, represented the agency at national conferences, served as liaison in regional and national meetings with EPA, prepared annual reports for the legislature and Governor's office, chaired Administrative Code revision committee.

Hydrogeologist 1985-1997
Environmental Consulting Firms, Madison WI & Rockford IL
Project oversight, including RCRA, Phase I/II environmental site assessments for property transactions, and groundwater investigations. Managed environmental projects including Fortune 500 manufacturing firms based out of Milwaukee. Provided corporate compliance audits for facilities located nationally and along the US/Mexico border. Managed metals contaminated site investigation and remediation program in California, including an evaluation of new metals-treatment technology and facilitation of meetings involving multiple regulatory agencies. Managed office for full service engineering, geotechnical and environmental consulting firm, including monthly operations reports, timesheets, accounts payable and receivable, expense reports, hiring and discipline of staff.

Branch Manager/Operations Manager/Hydrogeologist 1985-1993
Environmental Consulting Firms, Houston TX & Milwaukee WI
Supervised staff including geologist, drilling crew, and administrative support. Conducted business development. Managed environmental projects including RCRA, leaking underground storage sites, lumber treatment facilities, and locations of illegally disposed drums. Managed field activities for the City of Wausau Superfund Site and the Sheboygan River & Harbor Superfund Site, including oversight of drilling operations on each side of the Wisconsin River and in the Sheboygan Harbor, respectively. Completed health risk assessment and groundwater investigation for neighborhood surrounding petroleum refinery in western Louisiana. Conducted business development throughout Texas, Oklahoma, and the Midwest, including assistance with the opening of offices in Michigan, Indiana and Illinois. Conducted business development, participated in corporate strategic planning and training.

EDUCATION & TRAINING

Sustainability Consulting Cohort Program, ISSP – 2013
Science and ESL Education, Edgewood College, Madison, Wisconsin – 2008
Organizational Facilitation and Negotiation, State of Wisconsin – 1997
Organizational Management and Leadership Training, State of Wisconsin – 1998 - 2000
ISO14000 Environmental Management System Training - 1996
40 Hazardous Waste Operations and Emergency Response Training – NGWA, 1985
B.S., Geology – University of Wisconsin Platteville, 1985
Advanced classes in Hydrogeology – University of Minnesota Minneapolis, 1984-1985
Mining Engineering coursework – University of Wisconsin Platteville, 1980-1982
Water Well Drilling Course, Staples Technical Institute, 1982
Baroid Mud Drilling Technology – Baroid Drilling Institute, Houston Texas, 1981

PROFESSIONAL ASSOCIATIONS

ASTM International D18-21 on Ground Water Monitoring (1987-present)
ASTM International E-50 on Environmental Site Assessments (1990-present)
Department of Interior ASTM Representative to Subcommittee on Groundwater (2010-present)
Federation of Environmental Technologists Audit Committee CoChair (1990-1994)
Ground Water Age Advisory Board (1987-1990)
International Society of Sustainability Professionals Consultant Cohort (2013)
Merlin Mentors UW-Madison (2014)
Rock Trail Coalition Board of Directors (2013-present), Newsletter Editor (2013-present)
National Ground Water Association Ground Water Scientists & Engineers Director (1990-1994)
National Ground Water Association Ground Water Management and Protection Committee (2015)
National Ground Water Research and Educational Foundation Board Member (2015)
Rock Trail Coalition Newsletter Editor (2014-2015)
Sustainable Janesville Committee Member (2014-2015)
Wisconsin Ground Water Association President (1988-90), Board member (2008-10)
Wisconsin Water Association Chair, Small Systems Committee (2012-2013)
Wisconsin Water Well Association Associate Member (1985-present)
Wisconsin Women Environmental Professionals / Madison Chapter – CoChair (2003-2004, 2011)
University of Wisconsin Women in Business Council Board Member (1998-2000)

REFERENCES

Available upon request.