

I. SCOPE OF WORK**A. DEFINITIONS:**

For the purposes of this technical specification package, the following terms and definitions shall apply:

1. Active Corrective Action: The scope of work to be implemented under this solicitation as defined in the Technical Specification Package (Section I.A.14).
2. Area of Concern: The horizontal and vertical area, identified in the Appendix, in which concentrations of petroleum chemicals of concern have been quantified and/or can be relatively determined by actual data and subsequent interpretation using accepted scientific principles.
3. ACQAP: Annual Contractor Quality Assurance Plan
4. Catastrophic Occurrence: An event that results in a declared state of emergency and directly and substantially affects the Site Rehabilitation Contractor's operations at a site.
5. Chemicals of Concern (CoC): Specific petroleum constituents that are identified for monitoring and corrective action.
6. Corrective Action Completion Time (CACT): The time in months, submitted by the Site Rehabilitation Contractor, and acceptable to the South Carolina Department of Health and Environmental Control (DHEC), necessary to reduce CoC concentrations to or below site-specific target levels (SSTLs), verify attainment of all performance requirements as set forth in Section II.A.9, and remove and/or properly abandon assessment and corrective action components (wells, treatment lines, etc.) as determined by DHEC. All activities must be completed within 5 years of the Financial Approval Date. Any request for an extension beyond the 5-year time frame must be made in writing by the UST Owner/Operator and the Corrective Action Completion Time may be extended with a written no cost extension granted by DHEC.
7. Corrective Action Cost: The total amount established via the procurement process to complete the scope of work/specifications detailed in the solicitation unless otherwise modified pursuant to the terms of this solicitation. The maximum allowable corrective action cost DHEC can establish is dependent upon the remaining State Underground Petroleum Environmental Response Bank (SUPERB) account balance for the individual release, less any costs required for verification of performance milestones. All corrective cost above the maximum amount allowable, as established in S.C. Code Ann. § 44-2-40 (2018), are the responsibility of the UST Owner/Operator.
8. Corrective Action Plan (CAP): A document submitted by the Site Rehabilitation Contractor that outlines and details proposed corrective action(s) and contains a timetable consistent with the CACT, to include any subsequent CAP addendums or amendments.
9. Corrective Action Plan Implementation Date: The date on which the Contractor initiates corrective action (i.e., physical treatment activities such as excavation, extraction, injection, etc.) under the approved CAP. The date must be within 30 days of receipt of a Notice to Proceed issued by DHEC.
10. Day: For the purpose of this solicitation, any reference to day(s) will be intended as calendar day(s) and not business day(s).

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11. Free-Phase Product (FPP): Petroleum lighter than water non-aqueous phase liquid (LNAPL) identified for monitoring and corrective action.
12. Performance milestone: Milestones set forth in Section II.A.9 of this solicitation for which the Site Rehabilitation Contractor will receive payment under the Technical Specifications Package based on achieving the SSTLs identified in the appendix.
13. Quality Assurance Program Plan for the Underground Storage Tank Management Division (UST QAPP): The UST QAPP Revision under implementation at the time this solicitation is posted.
14. Technical Specifications Package: This document, to include the attached Appendix, which provides site-specific information, including information for obtaining the historical technical file, and defines the scope of work to be completed at the site(s) under this solicitation.

B. SOLICITATION STATEMENT

Larry H Jenkins, with assistance from the Underground Storage Tank (UST) Management Division of DHEC, is seeking services to perform active corrective action of a petroleum release or petroleum releases at a regulated underground storage tank site in accordance with the performance requirements as set forth in Section 2.A.9. The objectives are to prevent significant further migration of CoC and to reduce CoC concentrations to or below SSTLs established by DHEC. All applicants must be DHEC-certified Class I Site Rehabilitation Contractors and must remain in compliance with R.61-98 for the duration of the CACT.

C. SCHEDULE OF DELIVERABLES

The following table summarizes the deadlines for deliverables associated with this solicitation:

Please note that DHEC must be notified 15 calendar days prior to any activities to be conducted at the site.

DELIVERABLE DUE	DEADLINE
Questions	By August 27, 2021 by 5:00 pm
Corrective Action Solicitation Response Form	By September 10, 2021 by 5:00 pm
UST QAPP Contractor Addendum or Site-Specific Work Plan for Pre-CAP Monitoring Report	Within 30 days of issuance of the Financial Approval Letter. Due date will be indicated in correspondence from DHEC.
Pre-CAP Monitoring Report	Within 45 days from approval of UST QAPP Contractor Addendum or Site-Specific Work Plan for Pre-CAP Monitoring Report. Due date will be indicated in correspondence from DHEC.
CAP and UST QAPP Contractor Addendum or Site-Specific Work Plan for Corrective Action	Within 45 days of issuance of Notice to Proceed from DHEC for CAP Preparation. Due date will be indicated in correspondence from DHEC.
Public Notice Period	For period of 30 days upon DHEC review of CAP. Additional information may be needed from contractor based on comments received during PN period.
CAP Implementation	Within 45 days of issuance of Notice to Proceed from DHEC for CAP Implementation. Due date will be indicated in correspondence from DHEC.

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CAP Implementation Report	Within 75 days of issuance of Notice to Proceed from DHEC for CAP Implementation. Due date will be indicated in correspondence from DHEC.
Corrective Action System Evaluation Report (CASE Report)	Quarterly with initial sampling to occur 90 days after CAP Implementation and report due within 30 days of sampling. The reporting schedule may be revised with a written request from the tank owner and approved by DHEC. Due date will be indicated in correspondence from DHEC.
Receptor Sampling Results	To be included as part of the required CASE report submission.
Update UST QAPP Contractor Addendum or Site-Specific Work Plan for Corrective Action	First quarter of each year or as needed until completion of corrective action
Demobilization and Site Restoration	Within 75 days of issuance of Notice to Proceed from DHEC for Demobilization and Site Restoration. Due date will be indicated in correspondence from DHEC.

D. SITE SPECIFIC INFORMATION

The scope of work defined in this technical specification package is to be implemented at UST Permit #10122, Corner Stop 116, 393 Hampton St, Chesnee, SC 29323 for the release reported on June 21, 2001. A copy of the technical file will be available on-line at <https://scdhec.gov/environment/land-management/underground-storage-tanks/release-assessment-clean/active-corrective-0> until the CAP is approved. The technical file may also be reviewed at the Freedom of Information (FOI) Office located at the Sims/Aycock Building, 2600 Bull Street, Columbia, SC, 29201 (803-898-3882). **Appointment(s) to view the technical file may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling the FOI Office at 803-898-3882. A brief technical summary, including maps and data tables, is attached in the Appendix.** UST Site Rehabilitation Contractors are strongly encouraged to review the file(s) to ensure a complete understanding of corrective action requirements. It will be presumed, upon submittal of an offer, that the UST Site Rehabilitation Contractor has reviewed and understands all available information in the technical file.

II. SOLICITATION REQUIREMENTS

A. GENERAL REQUIREMENTS

1. **PAYMENT PERIOD:** The payment period will be effective from the date of financial approval until corrective action is complete as outlined in this solicitation.
2. **EQUAL OPPORTUNITY EMPLOYMENT:** Site Rehabilitation Contractors must agree to make positive efforts to employ women, minorities, and minority-owned businesses.
3. **AMENDMENTS:** All amendments to this solicitation shall be in writing from DHEC. DHEC shall not be legally bound by any amendment, interpretation or settlement that is not in writing.
4. **RESTRICTION:** the only official contact person at DHEC during the solicitation and financial approval process is Debra Thoma. Site Rehabilitation Contractors are not to contact any other DHEC personnel or other contractors.

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5. **FINANCIAL APPROVAL:** The UST Owner/Operator has the right to select a DHEC-certified Class I Site Rehabilitation Contractor to perform corrective action in accordance with the SUPERB Act (S.C. Code Ann. §§ 44-2-10 et seq.) and is not limited to UST Site Rehabilitation Contractors who respond to this solicitation. Therefore, financial approval may be made to a UST Site Rehabilitation Contractor who has been selected by the UST Owner/Operator but has not responded to this solicitation. The financial approval will be for the reasonable cost as defined in Section II.A.6. As the CACT is not to exceed 5 years, the financial approval will be limited to 5 years, unless an extension beyond the five-year time frame is made in writing by the UST Owner/Operator and the CACT is extended with a written no cost extension granted by DHEC. **Pursuant to S.C. Code Ann. § 44-2-120(B), the UST Owner/Operator is ultimately responsible for the actions of their selected UST Site Rehabilitation Contractor. Therefore, DHEC will pursue enforcement actions, if deemed necessary, in accordance with Section II.A.12, against the UST Owner/Operator if their selected UST Site Rehabilitation Contractor does not make satisfactory progress towards achieving the performance requirements as outlined in this technical specification package. SUPERB Funds are limited as noted in Section II.A.12 and defined in the Corrective Action Cost in Section I.A.7.**
6. **REASONABLE COST:** The lowest corrective action cost submitted in response to the solicitation will determine the reasonable or SUPERB-allowable cost to complete corrective action as defined by the solicitation. DHEC reserves the right to reject any and all submitted Corrective Action Solicitation Response Form that propose Corrective Action Costs that are not advantageous to the State of South Carolina, that propose a CACT that is not protective of public health and the environment, and that propose remediation technology(ies) or method(s) that cannot be permitted in the State of South Carolina and/or that are not protective of public health and the environment.
7. **SITE WORK VERIFICATION:** The UST Site Rehabilitation Contractor will be required to treat the area of concern as defined in Section I.A.2. and as shown in the Appendix (Figure 2). Verification that interim performance milestones have been achieved will be based upon sampling results from the SSTL wells and sampling points listed in the Appendix. Verification that the final performance milestone has been achieved will be based upon sampling results from all wells and sampling points and all verification wells to be installed at locations and depths designated by DHEC (see Section III.B for more details). It is understood that seasonal fluctuations in CoC concentrations will occur. It is the intent of this corrective action to prevent further degradation of the aquifer(s) by continued migration of CoC into areas not previously impacted. If the corrective action allows CoC to migrate into areas not previously impacted, the UST Owner/Operator and the selected UST Site Rehabilitation Contractor will be responsible for completing assessment activities necessary to re-define the impacted areas and for providing amendments to the CAP to address the additional impact. An on-site inspection must be performed and all required documentation submitted in order to verify the completion of the scope of work, as defined in the Technical Specification Package.
8. **REPORTS:** Reports are to be submitted to DHEC on or prior to the established due dates unless otherwise approved in writing by DHEC. Deliver one paper copy and one electronic copy of each plan and report to: DHEC, Bureau of Land and Waste Management, UST Management Division 2600 Bull Street, Columbia, SC 29201. The electronic copy should be submitted on compact disk (CD) in Personal Data Format (PDF). All data tables should be in MS Excel or comparable format. One copy of each plan or report must be delivered to each party listed on the Distribution List included in the Appendix. The distribution copies may be electronic or paper as agreed upon by the party and the UST Site Rehabilitation Contractor. Based on permitting and other requirements, additional copies of plans and reports may be required by DHEC.

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9. INVOICING: Invoices will be submitted to DHEC, Bureau of Land and Waste Management, UST Management Division, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the Corrective Action Invoice form. The initial invoice must be received at the above address within 4 months of CAP approval or funds will be uncommitted as required by S.C. Code Ann. § 44-2-40(B). If funds are uncommitted, the invoice will be held until funds become available. If applicable, no additional invoices need to be submitted to the UST Management Division once SUPERB coverage is exhausted. The UST Management Division will inform the UST Owner/Operator when the limits of SUPERB coverage have been reached.
- a) Payment of 25% of the total Corrective Action Cost will be made within 90 days following DHEC's receipt of an invoice, documentation that the UST Site Rehabilitation Contractor has completed the CAP Implementation, and approval from the UST Management Division. All corrective action activities must be as described in the CAP and are subject to the limitations of S.C. Code Ann. § 44-2-40. The implementation should be documented in the CAP Implementation Report. **Any proposed investigative activities (e.g. HRSC, LIF, pilot studies. Bench tests, etc.) are not considered CAP Implementation. In addition, the implementation of AFVR events on pre-existing extraction wells does not count as CAP Implementation as these type of activities were conducted prior to the solicitation of corrective action without success.** The CAP Implementation Report must include the construction logs for all injection and/or extraction wells installed in accordance with the CAP, as well as any additional requirements as defined in section III.B.5.
- b) Payment of 75% of the total Corrective Action Cost will be made based on achieving interim CoC concentration reduction performance milestones as verified in the SSTL wells and sampling points listed in the Appendix. Payments will be made upon receipt of invoices and documentation that the Site Rehabilitation Contractor has achieved interim performance milestones of 60%, 90%, and 100% reduction of total CoC concentration above the SSTLs by the implementation of corrective action as outlined in the CAP and including any subsequent CAP addendums or amendments. The CoC concentrations and SSTLs are listed in the Appendix.
- 1) The first interim concentration reduction performance milestone will be achieved when 60% of the total CoC concentration above SSTLs in the SSTL wells and sampling points listed in the Appendix is removed. The formula listed in the site rehabilitation section of the UST QAPP will be used to calculate the percent total concentration reduction. Payment of 10% of the Corrective Action Cost will be made by verification (see Section III.B.12 for the method of verification) that at least 60% of the total CoC concentration above SSTLs has been removed. **Achievement of this performance milestone must be verified in accordance with Section III.B.12.**
- 2) The second interim concentration reduction performance milestone will be achieved when 90% of the total CoC concentration above SSTLs in the SSTL wells and sampling points listed in the Appendix is removed. The formula listed in the site rehabilitation section of the UST QAPP will be used to calculate the percent total concentration reduction. Payment of 25% of the Corrective Action Cost will be made upon verification (see Section III.B.12 for the method of verification) that at least 90% of the total CoC concentration above SSTLs has been removed. **Achievement of this performance milestone must be verified in accordance with Section III.B.12.**
- 3) The final performance milestone will be achieved when both 100% of the total CoC concentration above the SSTLs (at the time the bid is posted) in the SSTL wells and sampling points listed in the Appendix has been verified to have been removed in accordance with Section III.B.12 AND site restoration has been completed in accordance with Section III.B.13-14. **Payment for the 100%**

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removal of CoC above SSTLs and for Site Restoration will be made concurrently, only when both have been achieved, and in accordance with the following conditions:

- a. 35% of the total Corrective Action Cost is allocated for achievement of 100% CoC concentration removal above SSTLs. **100% removal of CoC concentrations above SSTLs must be verified (during the fourth 100% verification quarter) in accordance with III.B.12 following four consecutive quarters with all corrective action activities completely ceased in order for DHEC to issue a written Notice to Proceed for site restoration.** CoC concentrations must not exceed SSTLs in all wells and sampling points listed in the Appendix, in all verification wells, and at any point in the area of concern.
 - b. 5% of the Corrective Action Cost is allocated for site restoration and will be paid upon DHEC's receipt of an invoice, verification in accordance with Section III.B.12 that 100% of CoC concentrations above SSTLs have been removed (30% of Corrective Action Cost), and verification, by a final inspection by DHEC, that assessment and corrective action components (e.g., piping, wells, trenches, etc.) have been removed from the site or properly abandoned (see Section III.B.13-14 for more details), and the facility and associated adjacent properties have been restored to the condition that existed prior to assessment and corrective action (Section III.B.14) (5% of Corrective Action Cost). **Site restoration must be completed within 60 days from receipt of a Notice to Proceed from DHEC confirming that 100% CoC concentration above the SSTLs is verified to have been removed and site restoration may proceed.**
10. REVISION OF SSTLS: SSTLs listed in the Appendix/Appendices have been established based upon site conditions and existing receptors at the time of Technical Specification Package solicitation. DHEC reserves the right to revise the SSTLs (in effect reducing the work scope) at any time during the CACT if deemed appropriate as long as SSTLs do not become more stringent. **Revision of SSTLs does not constitute modification of this Technical Specification Package. Revision of SSTLs may result in cancellation of this Active Corrective Action. If revision of SSTLs results in Active Corrective Action cancellation, payment will be reduced in accordance with the actual CoC mass reduction percentage achieved when compared to the SSTLs at the time this solicitation was posted. In addition, if 100% of the revised SSTLs have been achieved and site restoration is completed, 5% for the site restoration portion of the total corrective action cost will be paid.** This final 5% of the Corrective Action Cost will be paid upon DHEC's receipt of an invoice, and verification in accordance with Section III.B.12, that 100% CoC mass reduction when compared to the revised SSTLs has been achieved, and by a final inspection by DHEC, that all assessment and corrective action components (e.g., piping, wells, trenches, etc.) have been removed from the site or properly abandoned (see Sections III.B.13-14 for more details), and the facility and associated adjacent properties have been restored to the condition that existed prior to assessment and corrective action (Section III.B.14). **Site restoration must be completed within 60 days from issuance of a Notice to Proceed from DHEC confirming that 100% reduction of CoC mass when compared to the revised SSTLs has been achieved and site restoration may proceed.**
11. LIMITATIONS: The approved Corrective Action Cost will be final and will not be increased for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, damage by lightning, increased subcontractor costs, loss of utilities, modification to the system to meet the performance milestones, etc.) with the exception of: 1) unforeseen subsurface conditions as determined solely at the discretion of DHEC or 2) identification of additional CoC from a confirmed release that occurs subsequent to financial approval and that adversely impacts corrective action as determined by DHEC. Payment will only be made for achieving the performance milestones as set forth in Section III.B. No interim or partial payments will be made once corrective action is initiated, except as outlined in

Section III.B.4 or II.A.10 Once Active Corrective Action has been initiated, and in the event of a cancellation due to any of the conditions described in this Section, final payment, if appropriate, will be a percentage of the Corrective Action Cost as determined by DHEC. The percentage of the Corrective Action Cost will be reduced in accordance with the actual percent total CoC concentration reduction when compared to the SSTLs at the time the solicitation is posted, based upon last sampling results, as verified by DHEC in accordance with Section III.B.12, from all wells and sampling points listed in the Appendix and all verification wells, less the amount previously paid. Contractor-owned items used on-site for the corrective action that are damaged or destroyed by acts of nature, improper maintenance or handling, theft, or vandalism will not be replaced or reimbursed by the SUPERB Account. The Site Rehabilitation Contractor cannot delay progress or suspend corrective action activities at the site without written approval from DHEC based upon a claim of a suspected new petroleum release from the UST system. Unless directed otherwise by DHEC, the Contractor must continue to perform corrective action activities during any period of time during which a new petroleum release from the UST system is being investigated. The Contractor must clearly demonstrate sufficient evidence of the release in the form of analytical test results or other demonstrative evidence to DHEC. The determination that a new petroleum release from the UST system has occurred that post-dates the financial approval, and that adversely impacts corrective action at the site, is in the sole discretion of DHEC. **In the event that all performance requirements are not achieved within the CACT stated in Section IV.B.4, this Active Corrective Action may be cancelled, and the UST Owner/Operator will be held to the requirements in Section II.A.5.**

12. NOTIFICATION FOR FAILURE TO PERFORM: If the Site Rehabilitation Contractor fails during the course of this remediation to meet any requirement or specification of corrective action as outlined in this document without prior notification to DHEC of circumstances legitimately beyond their control, DHEC will notify the UST Owner/Operator of the violation by certified letter and meet with them and their Contractor establish a timetable and remedy for the deficiency(ies). If the tank owner and their Contractor correct the deficiency(ies) within the agreed to period of time, the corrective action activities will continue. If the UST Owner/Operator and their Contractor do not correct the deficiency(ies) in a satisfactory manner as specified by DHEC within the agreed to period of time, the tank owner may be subject to further enforcement actions. If the Contractor becomes decertified or is otherwise unable to complete the work during the course of the corrective action, the UST Owner/Operator will be required to select a new UST Site Rehabilitation contractor to continue the corrective action activities required in this solicitation. Please note, the maximum amount of allowable costs that may be reimbursed by the SUPERB account has already been determined and that amount will not increase due to a change in contractors during the course of the corrective action. Only the remaining allowable amount not paid will be available to any newly selected UST rehabilitation contractor.
13. PERIODIC MEETINGS: DHEC may require periodic meetings, as necessary, with the selected UST Site Rehabilitation Contractor and the UST Owner/Operator via teleconference, at DHEC, or at the site to discuss and verify progress of the Corrective Action.
14. PRE-FINANCIAL APPROVAL CONFERENCE: Due to the importance of the selected UST Site Rehabilitation Contractor having a clear understanding of the specifications and requirements of the solicitation, a mandatory pre-financial approval conference will be held with selected UST Site Rehabilitation Contractor and the UST Owner/Operator following the receipt of the contractor selection form, but prior to the financial approval. DHEC assumes no responsibility for any conclusions or interpretations made by the UST Site Rehabilitation Contractor based on the information made available at the conference. Nor does DHEC assume responsibility for any understanding reached or representation made concerning conditions which can affect the work as interpreted by the UST Site Rehabilitation Contractor. In addition, the amount of the financial approval will not change as a result of, or following, the pre-financial approval conference.

B. SPECIFIC REQUIREMENTS

1. SCOPE OF SOLICITATION: This technical specification package is for corrective action at one site in South Carolina.
 - a. The CACT for the site shall be entered on the Corrective Action Solicitation Response Form in Section IV.B.
 - 1) Time is of the essence in completing the site work to restore the aquifer and protect human health and the environment. Therefore, the UST Site Rehabilitation Contractor is encouraged to strive for efficient corrective action methods and to propose the shortest practical completion time for the site.
 - 2) The UST Site Rehabilitation Contractor shall provide an estimated timetable for implementation of all the proposed techniques in order to attain the performance milestones within the allotted time in Section IV.B
2. INQUIRIES: A copy of the technical file for the site will be available on-line at <https://scdhec.gov/environment/land-management/underground-storage-tanks/release-assessment-clean/active-corrective-0> until the CAP is approved. The technical file may also be reviewed at the FOI Office located at the Sims/Aycock Building, 2600 Bull Street, Columbia, SC 29201 (803-898-3882). All questions or requests for information must be submitted in writing to Debra Thoma, FAX number (803) 898-0673 or email thomadl@dhec.sc.gov, in accordance with the date specified in Section I.C. After this date, no further questions or requests for information will be addressed. A written response will be provided.

III. SPECIFICATIONS FOR CORRECTIVE ACTION**A. GENERAL SPECIFICATIONS**

1. SUBMITTALS: All UST Site Rehabilitation Contractors must submit a completed Corrective Action Solicitation Response form (Section IV). All submittals may be submitted via email to the attention of Debra Thoma at thomadl@dhec.sc.gov with the Subject: Corrective Action Solicitation Response, Corner Stop 116, UST Permit #10122 or hand-delivered or mailed in a sealed envelope to DHEC, UST Management Division, 2600 Bull Street, Columbia, SC 29201, ATTN: Debra Thoma. The envelope must be marked as a Corrective Action Solicitation Response for Corner Stop 116, UST Permit #10122. The response outlines in general terms the Offeror's approach to achieve the performance milestones as set forth in Section II.A.9 (i.e. reduction of each CoC to SSTL) and contains the following elements:
 - a. A description of the proposed treatment method(s) or technology(ies) for corrective action.
 - b. The amount of time in months to meet the performance milestones, install verification wells, and remove or abandon all assessment and corrective action components.
 - c. The total Corrective Action Cost (in U.S. dollars) to meet the performance milestones and to remove or abandon all assessment and corrective action components.

2. MINIMUM REQUIREMENTS: Corrective action will be considered complete when: 1) the CoC concentrations are verified to be at or below SSTLs in all wells and sampling points listed in the Appendix, in all verification wells, and at any point in the area of concern **for four consecutive quarters**; 2) all assessment and corrective action components (e.g., piping, wells, trenches, etc.) have been removed from the site or are properly abandoned; and 3) the facility and associated adjacent properties have been restored to the condition that existed prior to assessment and corrective action in accordance with Section III.B.13. See Section III.B.12. for the method of verification. Pursuant to R.61-98, all site rehabilitation activities associated with a UST release must be performed by an DHEC-certified Class I Site Rehabilitation Contractor. The Contractor will be required to adhere to all applicable portions of the UST QAPP and the Site Rehabilitation Contractor's ACQAP. A copy of UST QAPP is available at <https://scdhec.gov/environment/land-waste/underground-storage-tanks/release-assessment-clean/quality-assurance>. All CAPs and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoCs must be performed by a DHEC-certified laboratory. All monitoring, verification, injection, and extraction wells must be installed and abandoned by an South Carolina certified well driller. All applicable certification, training, permits, applications, and fees associated with well installation; injection, discharge, treatment, or transportation of groundwater, air, or soil; construction or operation of a corrective action system; and any other action requiring a permit are the responsibility of the UST Site Rehabilitation Contractor. Any required business or occupation licenses and occupational safety and health training as defined by the laws and regulations of the United States of America, the State of South Carolina, the county, or city are also the responsibility of the UST Site Rehabilitation Contractor. The terms and conditions of all applicable permits will be met. Any contaminated soil and construction debris, contaminated water, and FPP must be properly transported and disposed of, or treated at, an approved facility with prior approval from DHEC. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the UST Site Rehabilitation Contractor.

B. PERFORMANCE REQUIREMENTS

1. UST QAPP CONTRACTOR ADDENDA/SITE-SPECIFIC WORK PLANS: The UST Site Rehabilitation Contractor must submit a UST QAPP Contractor Addendum or Site-Specific Work Plan (SSWP) for the Pre-CAP Monitoring Report **within 30 days** from the date of financial approval. The Addendum or Work Plan for the Pre-CAP Monitoring Report must be approved by DHEC prior to initiation of work at the site. A UST QAPP Contractor Addendum or SSWP for corrective action must be submitted with the CAP. The Addendum or SSWP must be updated during the first quarter of each year or as needed until completion of corrective action.
2. CORRECTIVE ACTION PLAN: The UST Site Rehabilitation Contractor must complete and submit a detailed CAP and UST QAPP Contractor Addendum or SSWP for corrective action within 30 days from receipt of a Notice to Proceed for CAP Preparation from DHEC. Copies of the CAP must be distributed in accordance with Section II.A.8. The CAP must detail the **corrective action method(s)** and **technology (ies)** proposed to achieve corrective action goals in a manner that is consistent with the CACT submitted by the Site Rehabilitation Contractor. **The corrective action method(s) or technology(ies) must be designed to prevent vapors from entering onsite or adjacent structures.** It must be shown, by use of scientific models, computations, or discussion, how CoC concentrations will be reduced by each method and technology proposed. Any assumptions used in a model will be listed or shown, as well as appropriate references. **The use of existing monitoring well(s) for injection, extraction, or FPP recovery purposes is not allowed.** Accordingly, the CAP may propose installation of additional injection, extraction, or compliance wells.

General construction details will be included in the CAP (e.g. install 4 extraction wells, install 8 injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of assessment and corrective action component abandonment and/or removal. **The CAP may propose the use of investigative activities (e.g. HRSC. LIF, pilot studies, bench tests, etc.) to evaluate the effectiveness of a proposed technology before full-scale implementation at the site. However, implementation of the pilot study will not be considered corrective action implementation for payment purposes. Only full-scale implementation of a corrective action will be considered implementation for payment purposes. In addition, the implementation of AFVR events on pre-existing extraction wells does not count as CAP Implementation as these type of activities were conducted prior to the solicitation of corrective action without success.**

A corrective action timetable that includes demobilization and site restoration (Sections III.B.13-14) will be provided by the UST Site Rehabilitation Contractor. As corrective action is **required to be completed within 5 years** from financial approval, **the submitted timetable shall not exceed 5 years** in any case. The timetable shall itemize when the UST Site Rehabilitation Contractor expects to meet the 60%, 90%, and 100% interim performance milestones. During corrective action implementation, this timetable may be adjusted (as approved in writing by DHEC) if circumstances arise beyond the control of the UST Site Rehabilitation Contractor. Any request for an extension beyond the five-year **time frame** must be made in writing by the UST Owner/Operator and the CACT may be extended with a written no cost extension granted by DHEC. Any extension request or submittal of a revised timetable should include an updated CACT. If the UST Site Rehabilitation Contractor fails to meet the interim goals in the proposed time frames, the UST Owner/Operator will be subject to the Failure to Perform provisions in Section II.A.12.

DHEC will review the CAP and initiate a public notice period for a maximum of 30 days. The names and addresses of the owners of all impacted properties and all properties located adjacent to the impacted properties are provided in the Appendix. The UST Site Rehabilitation Contractor may be required to attend and provide input at one or more public meetings upon request by DHEC. Any CAP amendments and modifications resulting from the public notice must be submitted within 15 days of notification by DHEC. The CAP and any amendments or modifications must be sealed by a qualified Professional Geologist or Engineer registered in the State of South Carolina. The UST Site Rehabilitation Contractor shall consult with the UST Owner/Operator and any other affected property owners regarding the location of the corrective action system and obtain written approval from them prior to implementation. Copies of the approval(s) should be included in the CAP Implementation Report. Any aboveground part of the system that is to remain on-site for longer than 30 contiguous days must be secured within a fenced area or building.

3. **PERMIT APPLICATIONS:** The UST Site Rehabilitation Contractor must complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.) with the CAP to the appropriate DHEC program areas. All submitted applications must comply with the requirements of the respective permitting program. Any required permit changes or corrections will be submitted within 15 days of notification by DHEC. Work must not proceed until all required permits are submitted, approved, and the required notice to proceed is issued from the UST Management Division.
4. **PRE-CAP MONITORING REPORT:** Prior to CAP preparation, the UST Site Rehabilitation Contractor must submit a Pre-CAP Monitoring Report to DHEC documenting CoC concentrations and potentiometric conditions in all wells and sampling points listed in the Appendix. The report will be due **within 45 days** of issuance of the UST QAPP Contractor Addendum or SSWP approval from DHEC. The report should include color photographs with a date stamp of the facility/site and surrounding properties to provide documentation of the condition of the facility/site and surrounding properties prior to implementation of any corrective action activities. Copies of the Pre-CAP Monitoring Report must be distributed in

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accordance with Section II.A.8.

Naturally-occurring conditions may cause CoC concentrations to increase or decrease. For the purpose of this solicitation, the total CoC concentration for all wells and sampling points listed in the Appendix may reasonably increase as much as 150% or decrease as much as 50%. If the total CoC concentration in the wells and sampling points listed in the Appendix increases more than 150% percent based on initial sampling, or if measurable (>.01') FPP that has not been previously documented in any report is detected during the initial sampling event, the UST Site Rehabilitation Contractor may request in writing that financial approval be cancelled. **If any of these conditions are identified during Pre-CAP sampling, the UST Site Rehabilitation Contractor will notify DHEC within 2 days of identification and will submit written documentation within 5 days of notification requesting a decision from DHEC on continuance or discontinuance of the Active Corrective Action. If total COC or FP increase more than 150% or decrease more than 50% during the initial sampling event, sampling and analytical results of the Pre-CAP Monitoring Report will be verified by DHEC. The verification sampling event will be conducted by DHEC or DHEC's agent.** Financial approval will be cancelled and the UST Site Rehabilitation Contractor will be reimbursed based on the following rate schedule if DHEC discontinues this Active Corrective Action:

Table 4.1 – Reimbursement Rate Schedule (January 1, 2020)

Subcontract Costs*	Invoice + 12%
Personnel mobilization	\$451.34
Groundwater sample collection-purge	\$64.02 per well
Groundwater sample collection-no-purge	\$29.88 per well
Groundwater sample collection-low flow	\$97.10 per well
Field blank	\$26.25
Gauging FPP	\$7.47 per well
Contaminated water disposal	\$0.60 per gallon
FPP disposal	\$0.53 per gallon
UST QAPP Contractor Addendum preparation	\$250.00
Site-Specific Work Plan preparation	\$160.05

* Includes laboratory, drilling, electrical, etc.

If the total CoC concentration in the wells and sampling points listed in the Appendix decreases more than 50% based on Pre-CAP sampling, DHEC may cancel financial approval. The UST Site Rehabilitation Contractor will be notified of the cancellation by certified letter and must submit an invoice for the appropriate items listed in the rate schedule within 20 days from receipt of the letter. If financial approval is cancelled prior to the receipt of the Notice to Proceed for CAP preparation due to any of the conditions described in this Section, final payment will be made for work actually conducted in accordance with Table 4.1 above.

5. **CORRECTIVE ACTION PLAN IMPLEMENTATION:** After the public notice period has been completed and the CAP, UST QAPP Contractor Addendum, or SSWP, and all permit applications are reviewed and approved in accordance with the UST QAPP and the Site Rehabilitation Contractor's ACQAP, and R.61-92, Section 280.66, the DHEC UST Management Division will issue a Notice to Proceed with CAP Implementation. **CAP Implementation must not proceed until a written Notice to Proceed is received from the UST Management Division.** The Contractor will implement the CAP within 30 days of issuance of the Notice to Proceed by DHEC. If the CAP is not implemented in 30 days, a penalty of \$100 per day will be assessed for each calendar day late unless the UST Owner/Operator obtains written approval from DHEC regarding a

change in the implementation schedule. Any assessed penalty amounts will be deducted from the initial payment. If any problem with CAP Implementation occurs, the Contractor will notify DHEC within 24 hours of problem identification and will submit written documentation within 5 days of notification. Disruption to the normal business at the site will be kept to a minimum. Any modification, relocation, disturbance, or destruction of physical structures or features as a result of CAP Implementation must be approved in writing by the affected property owner prior to CAP implementation. Upon completion of any required construction, DHEC will inspect the corrective action system and issue a permit to operate. The UST Site Rehabilitation Contractor will, at all times, keep the site free from waste materials and rubbish related to corrective action and maintain the site in a neat and workmanlike condition for the duration of the corrective action. All contaminated soil and construction debris, contaminated water, and FPP generated on-site will be removed from the site promptly. Manifests documenting the proper disposal of contaminated soil and construction debris, contaminated water, and FPP must be included in the appropriate report. The UST Site Rehabilitation Contractor will repair and/or restore the site/facility to the condition that existed prior to CAP Implementation and as documented by the photographs included in the Pre-CAP Monitoring Report in accordance with III.B.4. Any deviation in returning the site/facility to the condition that existed prior to CAP Implementation must be documented in writing by the Site Rehabilitation Contractor and signed by the UST Owner/Operator and property owner. **If the CAP has been implemented and physical treatment activities performed, the UST Owner/Operator will be required to complete the Active Corrective Action unless conditions outlined in Section II.A.11 are encountered.**

Implementation of the CAP is not authorized until the UST Site Rehabilitation Contractor receives a Notice to Proceed from DHEC. If unauthorized implementation occurs, DHEC will not reimburse related costs incurred by the UST Site Rehabilitation Contractor from the SUPERB Account, and the Corrective Action Cost will be reduced by the amount of the incurred costs. If DHEC agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the Corrective Action Cost will be authorized.

A CAP Implementation Report will be due 75 days from issuance of the Notice to Proceed from DHEC and shall include a description of work sufficient to document CAP Implementation activities, construction logs for all injection and/or extraction wells installed in accordance with the CAP, and the associated dates of work.

6. **PROPERTY ACCESS:** The UST Site Rehabilitation Contractor will secure access from each affected property owner to complete the corrective action activities (e.g. gauging and sampling wells, installing corrective action components, etc.). The UST Site Rehabilitation Contractor will be responsible for any equipment used for corrective action installed on the site and any adjacent properties. Costs to repair or replace components of the corrective action system damaged due to the actions of property owners cannot be paid by the SUPERB Account. Property access forms should be submitted to the UST Management Division as part of the CAP Implementation Report.
7. **START-UP:** The UST Site Rehabilitation Contractor will initiate corrective action within 15 days of receipt of a permit to operate, if required. Corrective action as defined in the CAP will begin upon start-up. **NOTE: The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**
8. **REPORTING:** The UST Site Rehabilitation Contractor must complete and submit a CAP Implementation Report within 60 days of issuance of the Notice to Proceed. The Site Rehabilitation Contractor must also complete and submit a Corrective Action System Evaluation (CASE) report on a quarterly schedule.

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Sampling of all receptors listed in the Appendix must be conducted and included in the quarterly CASE reports. The CAP Implementation Report and CASE reports will be distributed in accordance with Section II.A.8. The first CASE report is due within 120 days of the CAP Implementation Report. **CASE reports must be submitted regardless of the status of corrective action activities.**

All receptors, wells, and sampling points listed in the Appendix will be sampled on a quarterly schedule (see Section III.B.9 for sampling details) following submittal of the CAP Implementation Report. All receptors listed in the Appendix will be sampled on a quarterly schedule for the duration of the corrective action.

CASE reports must include, at a minimum, all items stipulated in the Documents and Records section and Active Site Rehabilitation Procedures section of UST QAPP and must include a summary of all Corrective Action activities conducted to date and during the last reporting period. CASE reports must also include any additional data required by permits (e.g., air analyses, wastewater effluent analyses, etc.). The UST Site Rehabilitation Contractor will be provided with the proper report forms and reporting format prior to CAP Implementation. DHEC will notify the Site Rehabilitation Contractor regarding any revisions to the forms or format 60 days prior to the due date for the next CASE report.

CASE reports are to be submitted on a quarterly basis for the first year. Upon successful reduction and performance under the conditions of this solicitation, the Owner/Operator and their Contractor may request for a variance in the schedule for submission of CASE reports. The variance request must be in writing and be approved in writing by the UST Management Division. Please note, in the event that corrective action performance or CoC reduction does not progress or regresses, the UST Management Division will require CASE reports to be submitted on the original schedule.

The UST Site Rehabilitation Contractor must provide the UST Project Manager with a Project Status Report on a weekly basis via e-mail. The Project Status Report will include the UST Permit number, facility name, date of update, current status, any issues that have arisen, corrective action measures taken to correct deficiencies, any changes to date report is to be submitted. The UST Site Rehabilitation Contractor must notify the UST Project Manager via email 4 days prior to initiation of any site rehabilitation activity(ies). If there are any changes or conflicts with the date(s) of site activities, the UST Project Manager must be contacted within 24 hours of those changes. Due to the nature of the work conducted by the Contractors and the UST Management Division, the Contractor will notify the UST Project Manager within 24 hours via phone or e-mail concerning any quality assurance problems.

9. **SAMPLING:** The UST Site Rehabilitation Contractor must collect water samples from all receptors, wells and sampling points listed in the Appendix on a quarterly schedule. Time between treatment and sampling must be detailed in the CAP. Samples must be collected from all receptors listed in the Appendix on a quarterly schedule. **Do not sample wells and sampling points containing measurable (>0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. The sampling will be conducted in accordance with applicable portions of UST QAPP and the UST Site Rehabilitation Contractor's ACQAP. Additional samples (air, groundwater, effluent, soil) required by permits must be collected in accordance with established Quality Assurance/Quality Control protocol and submitted to a South Carolina certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, lab certification number) will be included in the CASE report.

Sampling is to be conducted on a quarterly schedule for the first year, upon successful reduction and performance under the conditions of this solicitation, the Owner/Operator and their UST Site Rehabilitation contractor may request for a variance in the sampling schedule. The variance request must be in writing and be approved in writing by the UST Management Division. Please note, in the event that corrective action performance or reduction does not progress or regresses, the UST Management Division will require sampling to be conducted in accordance with the original schedule.

10. **MONITORING WELL MAINTENANCE:** The monitoring wells are required to be maintained by UST Owner/Operator and the selected UST Site Rehabilitation Contractor for the duration of the contract. The condition of the wells should be documented in the Pre-CAP Monitoring report, prior to the initiation of any work by the UST Site Rehabilitation Contractor. The Contractor should note the condition of the wells during the sampling events. If any well requires maintenance (e.g., well caps, well covers, well tags), the contractor should document the actions taken to correct the deficiencies and return the well to compliance with the SC Well Standards (R.61-71). For any well that was pre-existing prior to the initiation of corrective action, in the event that the well pad becomes damaged or the well is rendered unusable, the condition of the well should be noted in the report and the project manager contacted. Additionally, funds from the SUPERB Account **may** be approved to bring the pre-existing wells (i.e. damaged or unusable) back into compliance with the South Carolina Well Standards and Regulations. For any well (e.g. injection, extraction, sparge, monitoring, etc.) installed by the UST Site Rehabilitation Contractor, the maintenance of all aspects of the well are the responsibility of the Contractor, including but not limited to well caps, well vaults, id tags, well pads, etc.
11. **DISPOSAL:** The UST Site Rehabilitation Contractor must properly dispose of all contaminated water, contaminated soil, and FPP generated during the corrective action. The UST Owner/Operator of the UST facility is considered to be the generator. Treatment and disposal must be conducted at a DHEC-approved facility, and must be documented in the CASE reports.
12. **QUALITY ASSURANCE & VERIFICATION:** If the UST Site Rehabilitation Contractor anticipates that an interim performance milestone has been achieved, the UST Site Rehabilitation Contractor must conduct a sampling event and submit the finalized lab report with well sampling data sheets electronically and via mail to DHEC for review. If the performance milestone is confirmed by DHEC, the contractor must completely suspend corrective action activities for a period of **15 calendar** days from the date of notification from DHEC. DHEC will then issue a directive for verification sampling and schedule an On-Site Field Audit or verification sampling. During the 60% and 90% verification sampling events DHEC must conduct an On-Site Field Audit to ensure adherence with the UST QAPP or verification sampling to confirm the results obtain by the UST Site Rehabilitation Contractor. DHEC must be allowed at least 15 calendar days in order to schedule a time to conduct an On-Site Field Audit or verification event

Once sampling data indicates 100% CoC concentration reduction, the UST Site Rehabilitation Contractor must submit the finalized lab report with well sampling data sheets electronically and via mail to DHEC for review. If the performance milestone is confirmed by DHEC, the contractor must completely suspend corrective action activities for a period of **30 calendar** days from the date of notification from DHEC. After 30 days, the UST Site Rehabilitation Contractor will sample all wells and sampling points listed in the Appendix again to verify that the final (100%) CoC concentration reduction performance milestone has been achieved and maintained, and submit a finalized lab report with well sampling data sheets to DHEC documenting the results of this 30-day post system shut off sampling event. If the performance milestone is achieved and maintained, as verified by DHEC, the date of the 30-day post system shut off sampling event will be considered the start of the four-quarter, post-corrective action verification period. The UST Site Rehabilitation Contractor will conduct quarterly sampling of all wells and sampling points listed in the

Appendix and all verification wells for four quarters. All sampling, analytical methods, and reporting limits should be in accordance with Section III.B.9, the UST Site Rehabilitation Contractor's ACQAP, and the UST QAPP. Furthermore, the UST Site Rehabilitation Contractor will be allowed one verification attempt during each reporting period for the 60%, 90%, and 100% performance milestones.

The 100% CoC reduction performance milestone will require verification sampling to be conducted by DHEC or DHEC's Agent at the end of the four-quarter, post-corrective action verification period to confirm that the 100% performance milestone has been maintained. In addition to the verification samples, DHEC may provide up to three standards or prepared blanks for the UST Site Rehabilitation Contractor's laboratory to analyze. Analytical data sets from the UST Site Rehabilitation Contractor's laboratory and DHEC's laboratory will be compared. In the event of substantial variance (more than 15%) between the sets, a second verification sampling event will be conducted with the UST Site Rehabilitation Contractor. If the variance persists, all data sets and associated quality assurance/quality control data will be provided to Laboratory Certification to determine the cause of the variance. The Director of the UST Management Division will solicit input from Laboratory Certification, the UST Section Manager, the UST Project Manager, and the UST Site Rehabilitation Contractor, and render a final decision as to which data set will be used for verification. The UST Site Rehabilitation Contractor will be provided a written record of the decision.

If sampling results show that the final 100% CoC concentration reduction performance milestone has not been maintained, and/or CoC concentrations exceed SSTLs in any well, corrective action must be resumed. DHEC may require the UST Owner/Operator and the UST Site Rehabilitation Contractor to propose a revised corrective action strategy and timetable to achieve and maintain the performance milestone. The strategy may require modification of the existing corrective action system. The post-corrective action period will be suspended and corrective action will continue until the final 100% CoC concentration reduction performance milestone is again achieved. The UST Site Rehabilitation Contractor will again suspend corrective action and sample all wells and sampling points after 30 days. If the performance milestone is achieved and maintained, a new post-corrective action verification period will begin. The aforementioned cycle of activity must be repeated until CoC concentrations remain at or below SSTLs in all wells and sampling points listed in the Appendix and in all verification wells for four (4) consecutive quarters.

DHEC may require installation of up to six verification well(s) during the post-corrective action verification period at designated locations and depths. Costs for the verification wells will be considered part of the Corrective Action Cost. SSTLs for the verification wells will be provided by DHEC. The verification wells are to be installed before the first quarter of verification, but after the 30-day 100% verification is confirmed. DHEC will provide the approximate location and depth of the wells at the time of installation.

DHEC reserves the right to conduct QA/QC sampling at any time during the duration of the corrective action either on its own or by DHEC's agents to check and verify the progress the contractor is making towards achieving the performance measures. Any results obtained will be provided to the UST Owner/Operator and the UST Site Rehabilitation Contractor upon review by the UST Management Division.

- 13. DEMOBILIZATION & SITE RESTORATION:** The UST Site Rehabilitation Contractor will disassemble, remove, or properly abandon all pre-existing assessment components, the corrective action system and associated components (piping, monitoring wells, injection and/or extraction wells, trenches, etc.) installed as part of this Active Corrective Action including piping, injection, or extraction wells, or utilities from the site within 60 days of a written Notice to Proceed received from the UST Management Division confirming the 100%

CoC concentration reduction performance milestone has been achieved and maintained for 4 consecutive quarters as described in Section III.B.12. Abandonment will be in accordance with the South Carolina Well Standards and Regulations R. 61-71, the UST QAPP, and the UST Site Rehabilitation Contractor's ACQAP or QAPP Addendum, and accepted industry standards for abandonment of trenches and piping/utility runs.

Abandonment of any corrective action system, monitoring well, recovery well, remediation well, etc., may not proceed until a written Abandonment Directive is issued by the UST Management Division. Disruption to the UST Owner/Operator's or property owner's business must be kept to a minimum. The UST Site Rehabilitation Contractor must provide DHEC with documentation of the abandonment and disposal of any remaining contaminated soil, contaminated groundwater, and FPP. Unless otherwise directed by DHEC, the UST Site Rehabilitation Contractor will restore the site and adjacent properties to the condition that existed prior to assessment and corrective action (e.g., repaving, reseeding, etc.) as documented by the photographs included in the Pre-CAP Monitoring Report or other written documentation detailing a variance from the conditions documented by the photographs. Neither DHEC nor the SUPERB Account will be liable for any damages caused by the UST Site Rehabilitation Contractor. Abandonment of any corrective action system, monitoring well, recovery well, remediation well, etc., may not proceed until a written Abandonment Directive is issued by the UST Management Division. Disruption to the UST Owner/Operator's or property owner's business must be kept to a minimum. The UST Site Rehabilitation Contractor shall be required to indemnify the property owner, UST Owner/Operator, and the State of South Carolina from and against all claims, damages, losses, and expenses arising out of or resulting from activity conducted by the UST Site Rehabilitation Contractor, its agents, employees or subcontractors. **Under no circumstances will payment for Site Restoration exceed 5% of the Corrective Action Cost.**

14. COMPLETION NOTICE: Written notice must be provided to DHEC at least 2 weeks prior to completion of site restoration. This will allow DHEC and the UST Site Rehabilitation Contractor time to jointly inspect the site and adjacent properties and compile a list of tasks to be finished. Task items may include, but are not limited to, well abandonment, pavement repair, debris removal, etc. **Demobilization & Site restoration will be complete once all the tasks are finished, the site passes a final inspection by DHEC, and DHEC issues written notice that the corrective action is complete.**

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IV. CORRECTIVE ACTION SOLICITATION RESPONSE FORM

A. ACCEPTANCE and DELIVERY STATEMENT

In compliance with the solicitation and subject to all conditions thereof, the UST Site Rehabilitation Contractor agrees to complete the corrective action as specified at the price set forth for the site as stated below. For the purpose of this submittal and possible acceptance of financial approval, I certify that this company understands the nature of the release(s) and the geologic conditions at the site as documented in the technical file and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the financial approval amount.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the area of concern.

UST Site Rehabilitation Contractor (Print)

UST Site Rehabilitation Contractor Certification #

Registered Professional Name (Print)

Registered Professional Signature (required)

P.G. P.E. (Check appropriate box)

Professional Certification # _____

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for **UST Permit #10122, Corner Stop 116, 393 Hampton St, Chesnee, SC 29323**:

1. Please provide detailed information as to how the active corrective action treatment techniques that will be discussed in the CAP will, in accordance with this solicitation, effectively reduce dissolved concentrations to reach target SSTL values and achieve all performance milestones within the 5 year remediation period. Please include the number of proposed injection points, proposed number of extraction points, proposed volume of excavated material, proposed volume of injected material, etc. Only method(s) and/or technology(ies) that will be implemented on site should be included.

2. The Corrective Action Cost is _____, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that CoC concentrations do not exceed SSTLs at any point in the area of concern; complete all associated monitoring and post-corrective action verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when

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completed, properly abandon and/or remove all assessment and corrective action components; and complete other items outlined in this solicitation.

- 3. Please provide how the corrective action costs stated in #2 will be allocated for the corrective action activities discussed in item #1 to include, but not limited to, corrective action system planning & installation (including the installation of any remediation wells), system operation & maintenance, expendables (e.g. injectates), sampling/analyses over the entire duration of the contract, corrective action system installation, site restoration, etc. **(See Example Chart Below)**

- 4. Please provide an estimated timetable for implementation of all proposed techniques discussed in #1 as well as attainment of all performance milestones (i.e. Free product removal, 60% reduction, 90% reduction, 100% reduction, site restoration, etc.). **(See Example Chart Below)**

- 5. The CACT, in months, to achieve all performance milestones from the Effective Date until the final payment milestone has been achieved and maintained for 4 consecutive quarters is _____ months. All activities must be completed within 5 years of the Effective Date. Any request for an extension beyond the 5 year time frame must be made in writing by the contractor and the CACT may be extended with a written no cost extension granted by DHEC.

- 6. Please provide an estimated timetable for implementation of all proposed techniques discussed in Item 1 as well as attainment of all performance milestones (i.e., 60% reduction, 90% reduction, 100% reduction, site restoration, etc.). **(See Example Chart Below)**

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CHART IS AN EXAMPLE ONLY

Item	Cost	Time (date)
Preconstruction Cost		
Baseline Sampling	\$9,500	July 2020
Surfactant Selection	\$15,000	August 2020
CAP Design	\$10,000	August 2020
Construction Cost		
Site Preparation	\$8,000	September 2020
Well Installation/Drilling Services	\$25,000	October 2020
Drill Cuttings/Disposal	\$3,000	October 2020
Surfactant Cost	\$40,000	September 2020
Chemical Injection Cost	\$25,000	September 2020
Installation of Air Sparging/Vapor Extraction	\$35,000	October 2020
Soil Excavation (include soil disposal)	\$45,000	November 2020
Soil amendments & Backfill costs	\$20,000	November 2020
AFVR w/ off gas (10 events/96 hours)	\$85,000	July 2023
AFVR Wastewater/Product Disposal (200,000 gallons)	\$95,000	July 2023
Skimmers/Socks	\$6,500	July 2023
Operations & Maintenance Costs		
Labor Costs	\$85,000	August 2025
Utilities/Indirect Misc. Cost	\$23,000	August 2025
Analytical/Groundwater Sampling (12 semi-annual-includes verification)	\$65,250	August 2025
Total	\$595,250	

Please note, the table is for example purposes only and not inclusive. Actual line items to be included may vary depending on the technology and costs that will **actually** be incurred. All anticipated costs should be accounted for in the table along with the appropriate time for completion.

Appendix

Distribution List for Plans and Reports

	Contact Name	Contact Address	Tax Map #
1.	Larry H Jenkins	PO Box 186, Chesnee, SC 29323	002-00-00-016.000
2.	Hanumanta, LLC	401 Black Oak Ct, Spartanburg, SC 29323	002-00-00-016.001
3.	Eagle Academy, Inc	321 Hampton St, Chesnee, SC 29323	002-00-00-017.000
4.	Gerald B Cudd	145 Mt Pleasant Rd, Spartanburg, SC 29303	002-00-00-021.004
5.	Tribal Manufacturing QALICB	815 Pickens St, Chesnee, SC 29323	002-00-00-048.000
6.	James L Hodges Jr	1905 Grandview Ct, Mt Pleasant, SC 29464	005-00-00-014.000
7.	William B & Julie McDaniel	708 E Oconee St, Chesnee, SC 29323	002-00-00-015.000
8.	James R Brooks	247 Hicks Grove Rd Ext, Mooresboro, NC 28114	002-00-00-018.000

*Information is subject to change due to sale or other exchange of property

Analytical Parameters

Analyte	Analytical Method	Reporting Limit
BTEX	8260B	5 µg/L
MTBE	8260B	5 µg/L
Naphthalene	8260B	5 µg/L
EDB	8011	0.02 µg/L
TAA	8260B	100 µg/L
TAME	8260B	10 µg/L
DIPE	8260B	5 µg/L

Receptors

Receptors are required to be sampled on a quarterly schedule.

ID	Type
SW-1 through SW-5	Creek

Verification Wells

Six (6) verification well(s) may be installed during the post-corrective action verification period at locations designated by the UST Program. Costs for the well installation(s) are considered part of the approved Corrective Action Cost. The UST Program will calculate SSTLs for the verification well(s) and provide data to the contractor in writing. During the verification period, all wells must be sampled for the parameters listed in the Analytical Parameters Table as well as the following parameters:

Analyte	Analytical Method	Reporting Limit
Dissolved Oxygen	SM4500-O G	500 µg/L
Ferrous Iron	SM3500-Fe D	30 µg/L
Methane	Kerr Method	1000 µg/L
Nitrate	9056/9210	100 µg/L
Sulfate	9038/9056	1000 µg/L

Dissolved CoC Concentrations during Groundwater Sampling event conducted on 3/4/21

	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE	Naphthalene	EDB	TAA	TAME	DIPE
MW-1R	4210	11600	866	5110	<500	<500	35.4	<10000	<1000	<500
MW-2R	<5	<5	10.2	<5	<5	12.9	<0.02	<100	<10	<5
MW-3	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-4	3190	11100	2440	15900	<500	679	<0.021	<10000	<1000	<500
MW-5	1790	27200	2460	13600	<1000	<1000	<0.02	<20000	<2000	<1000
MW-6R	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-7R	1730	15900	2410	11500	<625	<625	<0.02	<12500	<1250	<625
MW-8	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-9	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-11	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-12R	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-13R	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-15	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-16R	10800	17900	1670	8990	4590	<500	<0.02	<10000	<1000	619
MW-17R	2530	<125	1540	7040	393	498	<0.02	<2500	<250	<125
MW-18R	598	3970	928	6110	<200	282	<0.02	<4000	<400	<200
MW-19R	7250	16200	1190	6840	838	<625	<0.02	<12500	<1250	<625
MW-20R	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-21*	<5	<5	<5	<5	<5	<5	<0.02*	<100	<10	<5
MW-23	<25	<25	<25	<25	689	<25	<0.02	<500	<50	<25
MW-24	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-25	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
MW-26	128	<5	<5	<5	74.1	<5	<0.02	337	<10	8.5
MW-27	6	87.8	52.6	232	<5	9.4	<0.02	<100	<10	<5
MW-28	32.2	460	139	665	<25	<25	0.13	<500	<50	<25
MW-29	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
RW-1	9130	22000	2010	11200	<1000	<1000	80.8	<20000	<2000	<1000
RW-2	6310	22600	1960	10200	<625	<625	70.2	<12500	<1250	<625
DW-1	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
DW-2	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
DW-3	<5	<5	<5	<5	<5	<5	<0.02	<100	<10	<5
SW-1	81.1	38.2	14.1	37.7	74.9	3.5	<0.02	184	<10	8.9
SW-2	20.7	14.4	4.3	13.1	65.9	1.1	<0.02	<100	<10	10.1
SW-3	3.2	1.2	<1	1.4	76.3	<1	<0.02	<100	<10	5.8
SW-4	7.1	2.9	1.1	3.3	77.7	<1	<0.02	<100	<10	7.4
SW-5	1.3	<1	<1	<1	40	<1	<0.02	<100	<10	3

*CoC concentrations in µg/L based on 3/4/21 sampling event. CoC concentrations may vary due to seasonal fluctuations in the groundwater.

*MW-21 CoC concentrations in µg/L based on 4/4/18 sampling event; MW-21 EDB concentration based on 4/4/08 sampling event

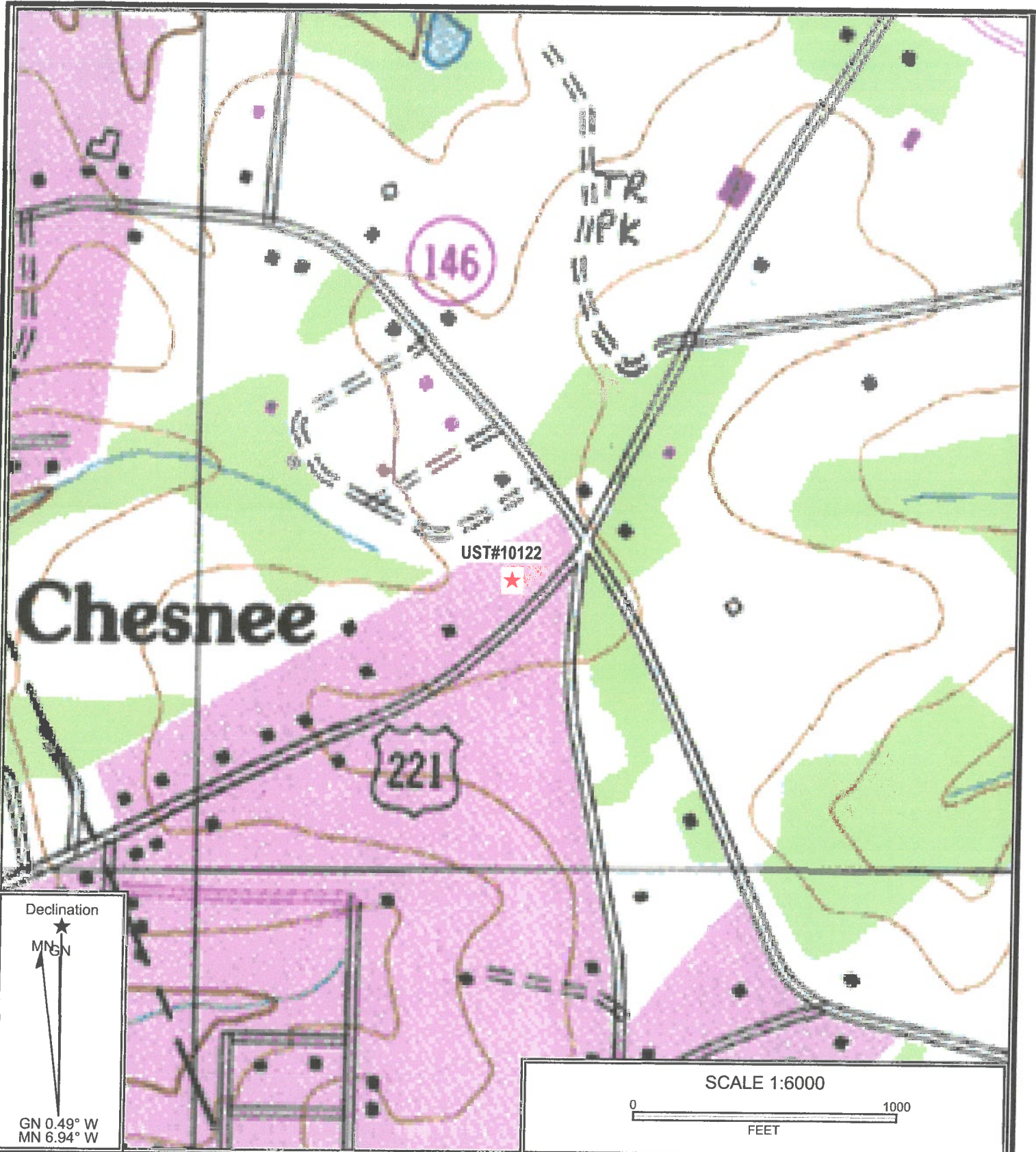
Groundwater SSTLs

	Benzene	Toluene	Ethylbenzene	Xylene	MTBE	Naphthalene	EDB	TAA	TAME	DIPE
MW-1R	43	<i>11,600</i>	<i>866</i>	<i>5,110</i>	101	150	0.32	733	443	486
MW-4	19	5,705	<i>2,440</i>	<i>15,900</i>	70	76	0.021	472	273	306
MW-5	22	6,705	<i>2,460</i>	<i>13,600</i>	75	85	0.02	506	294	329
MW-7R	31	10,851	<i>2,410</i>	<i>11,500</i>	88	116	0.02	620	368	408
MW-16R	7	1,532	1,002	<i>8,990</i>	45	32	0.02	279	152	176
MW-17R	9	125	1,300	<i>7,040</i>	49	39	0.02	314	174	125
MW-18R	15	<i>3,970</i>	<i>928</i>	<i>6,110</i>	63	62	0.02	411	234	265
MW-19R	12	2,984	<i>1,190</i>	<i>6,840</i>	56	50	0.02	359	201	229
MW-23	7	25	25	25	45	25	0.02	279	50	25
MW-26	17	5	5	5	66	5	0.02	337	10	8.5
MW-27	6	<i>87.8</i>	<i>52.6</i>	<i>232</i>	5	9	0.02	100	10	5
MW-28	<i>32.2</i>	<i>460</i>	<i>139</i>	<i>665</i>	25	25	<i>0.13</i>	500	50	25
RW-1	23	7,267	<i>2,010</i>	<i>11,200</i>	77	89	0.19	523	305	341
RW-2	43	16,146	<i>1,960</i>	<i>10,200</i>	101	150	0.32	733	443	486
SW-1	<u>5</u>	<i>38.2</i>	<i>14.1</i>	<i>37.7</i>	<u>40</u>	3.5	0.02	<i>184</i>	10	<i>8.9</i>
SW-2	<u>5</u>	<i>14.4</i>	<i>4.3</i>	<i>13.1</i>	<u>40</u>	<i>1.1</i>	0.02	100	10	<i>10.1</i>
SW-3	3.2	<i>1.2</i>	1	<i>1.4</i>	<u>40</u>	1	0.02	100	10	<i>5.8</i>
SW-4	<u>5</u>	<i>2.9</i>	<i>1.1</i>	<i>3.3</i>	<u>40</u>	1	0.02	100	10	<i>7.4</i>
SW-5	<i>1.3</i>	1	1	1	<i>40</i>	1	0.02	100	10	<i>3</i>

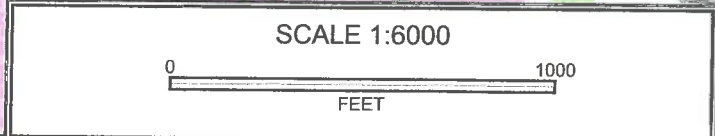
Italic : Laboratory analysis is less than calculated SSTL --> SSTL is set to laboratory analysis

Bold: Laboratory analysis is below reporting limit --> SSTL is set to reporting limit

Underline: Calculated SSTL is greater than Risk-Based Screening Level (RBSL) --> SSTL is set to RBSL



Declination
 ★
 MN
 GN 0.49° W
 MN 6.94° W



Reference: Chesnee, South Carolina
 USGS 7.5 Min. Quad
 Contour Interval- 6 Meters

<p>Midlands Environmental Consultants, Inc.</p>	Site Location
	<p>Corner Stop 116 393 Hampton Street, Chesnee, SC SCDHEC Site ID# 10122</p>
Figure 1	MECI 20-7494

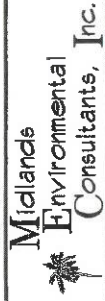
Explanation:

- ⊙ Location of "Shallow" Bracketing Monitoring Well
- ⊕ Location of "Deep" Monitoring Well
- ⊙ Location of Surface Water Sample
- ⊙ Location of 4-inch Recovery Well
- ⊙ Estimated Groundwater Flow Direction
- ⊙ Estimated Location of Existing Underground Storage Tanks
- ⊙ Storm Sewer Drop Inlet
- ⊙ Location of 4-inch Recovery Well
- ⊙ Overhead Powerline
- ⊙ Property Line
- ⊙ Buried Water Line
- ⊙ Fence
- ⊙ Storm Sewer
- ⊙ Stream

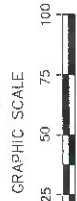
O = Area of Concern
 *Area of Concern extends along Stream to include SW-5 (not shown on map)

Site Base Map

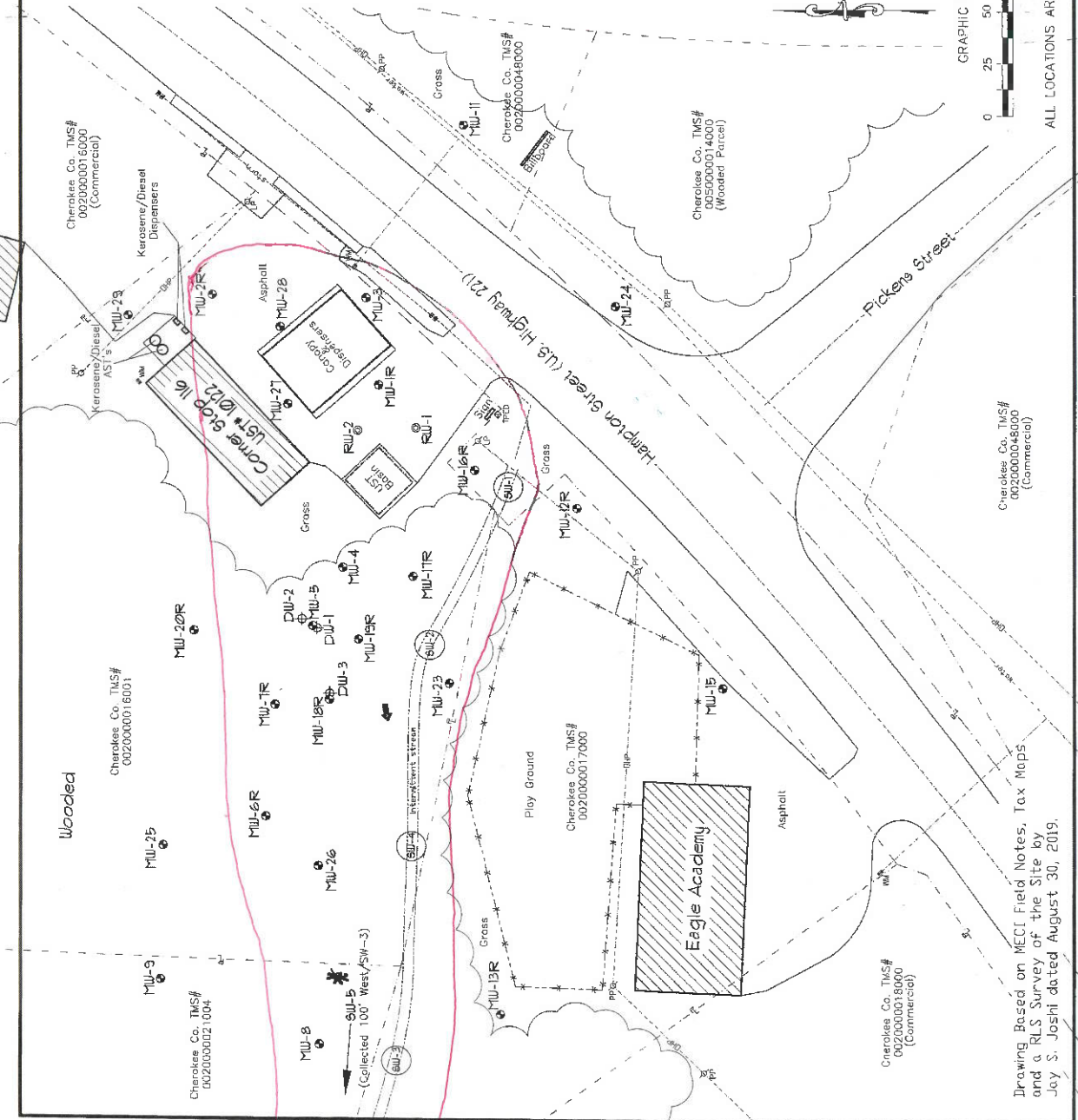
Corner Stop 116
 393 Hampton Street
 Chesnee South Carolina
 SCDHEC Site ID 1022



JOB NO. 20-7494
 DATE: March 15, 2021
 FIGURE 2



ALL LOCATIONS ARE APPROXIMATE






Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 30, 2019.

UST #10122

Corner Stop 116

Legend

-  Area of Concern
-  Creek
-  Surface Water Sampling Location

