



**INSTRUCTIONS FOR PREPARATION AND SUBMITTAL
OF
TECHNICAL PROPOSALS
FOR
FEDERAL LEAKING UNDERGROUND STORAGE TANK
CONTRACT EVALUATION
MAY 2017**

**UNDERGROUND STORAGE TANK PROGRAM
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
P.O. BOX 301463
MONTGOMERY, ALABAMA 36130-1463**

**INSTRUCTIONS FOR PREPARATION AND SUBMITTAL
OF TECHNICAL PROPOSALS
FOR FEDERAL LEAKING UNDERGROUND STORAGE TANK
CONTRACT EVALUATION
FY 2017**

The Alabama Department of Environmental Management (ADEM) is initiating procurement procedures to obtain hydrogeological and engineering services for the performance of emergency response activities, to provide a temporary source of drinking water, to perform soil and groundwater quality assessments, develop risk-based corrective action limits, and to develop and implement soil and groundwater corrective action plans at sites where a petroleum release has occurred from an underground storage tank system. This work is funded through the Federal Leaking Underground Storage Tank (LUST) Trust Fund and is subject to the procurement regulations contained in 40 CFR Part 31. The ADEM is currently seeking three or more firms with which to contract to perform site activities. The selection process will be based on the submittal of technical proposals which will contain information regarding the firm's personnel, experience and knowledge of investigation and corrective action activities.

The following instructions for preparation of the technical proposal have been designed to minimize preparation cost and response time. These instructions will also help to ensure that all proposals are reviewed and evaluated in a consistent manner. Information submitted in a form inconsistent with these instructions could result in a loss of credit. Proposal information relating to personnel and past experience that is not in the required format will not be given full credit.

One original signed transmittal letter must accompany three (3) copies of the technical proposal submittal. This letter shall bear the name, title, address, and telephone number of the official contact and an alternate contact. The individual(s) named shall be available to be contacted by telephone and attend meetings as required for negotiations and contract signing.

This is a competitive process which will result in the awarding of contracts to the most qualified firms based on the submitted technical proposal and interviews.

I. The technical proposal should contain sections addressing the following five areas in sequential order indicated below:

A. GENERAL INFORMATION REGARDING FIRM

Provide the following information in a clear and concise format:

- 1) Firm name, street address, mailing address, phone number, and fax number.
- 2) Name of proposed key contact and alternate contact. Include name, title, address, phone number and email address.
- 3) Date of firm's incorporation and/or organization.
- 4) Is firm registered with the Alabama Secretary of State's Office and the Alabama Department of Revenue Franchise Tax Division? (Each contractor should contact these two agencies to determine if their firm will be required to be registered with the agencies.)

- 5) Does the firm hold a current Alabama General Contractor's License? This is a requirement for consideration for this contract. Indicate the status of the license.
- 6) Does firm have a Certificate of Authorization from the Alabama State Board of Licensure for Professional Engineers and Land Surveyors?
- 7) Provide the name of the individual responsible for preparation of Section C of the proposal.
- 8) Provide proof of insurance in the amounts listed under ADEM Admin. Code R. 335-6-16-.16(1)(b).
- 9) Each firm submitting a proposal must obtain all other applicable licenses, permits, etc., to provide the services described in these instructions in conformance with state and local laws and regulations. A statement verifying that the applicable licenses, permits, etc., have been obtained by the applicant must be provided in the proposal.
- 10) Contractors must affirm, for the duration of the potential contractual agreement, that they will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the state of Alabama. A statement verifying that the firm will not violate federal immigration law or knowingly employ, hire for employment, or continue to employ an unauthorized alien within the state of Alabama must be included in the proposal.

B. BACKGROUND AND EXPERIENCE OF PERSONNEL WHO WILL PERFORM THE WORK

Using the attached Form A format, provide a resume of all key professional personnel to be used for the LUST Trust Fund projects, including resumes of all key subcontractor professional personnel to be used. Clearly specify which personnel are in-house and which are subcontracted. Include their qualifications, specialized experience gained during their entire career, and their proposed responsibilities for these projects. The "Project Responsibilities" column under Item i must be completed by designating an "S" for supervision, "M" for project management, "D" for design, "R" for report and plan preparation, "F" for field work, or "O" for other. One or more of these categories may be designated by using all appropriate letters.

Please be aware that if the Form A format is not used, full credit will not be given for this criterion.

A professional engineer registered in the State of Alabama must be included in this section who has the necessary experience to prepare a corrective action plan and under whose registration plans and specifications for corrective action proposals would be submitted. The registration number of the Professional Engineer(s) must be included in this submittal. Any company which directly employs a professional engineer to perform these services must obtain a certificate of authorization from the Board of Registration for Engineers and Land Surveyors. The registration number and a copy of the Certificate of Authorization must be included in the submittal.

A professional geologist licensed in the State of Alabama must be included in this section that has the necessary experience to perform geological evaluations at underground storage tank release sites. The license number of the Professional Geologist(s) must be included in this submittal.

Each approved firm must also have a current Alabama General Contractor's License to be considered for a contract. Please visit www.genconbd.alabama.gov for more information regarding this requirement.

This discussion must adequately demonstrate that sufficient technical staff is available to meet investigation and corrective action requirements in a timely and technically adequate manner. **Proposals must include at least one full time professional in the area of geological support and one full time professional in the area of engineering support (unless one individual demonstrates an adequate educational background and experience base to satisfy both areas of concern) or full credit cannot be given.**

Technical Proposals not including an Alabama Registered Professional Engineer as well as proposals not including an Alabama Licensed Professional Geologist will be considered incomplete and will not be evaluated.

Please note, item f on Form A must contain the type of degree(s) each person has earned (BS, BA, MS, etc.), the subject area (Biology, Geology, Engineering, etc.), the year the degree(s) was granted, and the college/university from which the degree(s) was obtained.

Please attach to Form A a listing of risk assessment, risk management, and risk-based corrective action training your staff has received. The information should include who has received the training, the name of the training course, where the training course was held, who taught the course and when the course was held. Due to the implementation of the risk-based corrective action (RBCA) approach in the Alabama UST program, this background information is of vital importance in determining if your firm has the appropriate training in this area of expertise.

Also, provide a listing of risk assessment evaluations that your firm has performed on sites located in Alabama or in other states. Please indicate the UST incident number, facility I.D. number for the site, and the name and location of the site.

C. KNOWLEDGE OF TECHNICAL CONSIDERATIONS NECESSARY TO PERFORM PETROLEUM CONTAMINATION ASSESSMENTS AND REMEDIATION

Describe the technical approach that would be used to assess and remediate a petroleum contaminated site where both soil and groundwater have been impacted. At a minimum, a discussion of the following must be presented, or the discussion will be considered incomplete and will not be given full credit. **The author or authors of this discussion must be indicated and the resume of the author(s) must be included in Section B above.** Please present the following discussion in the sequential order indicated below:

1. Describe methods and procedures that would be used for initial abatement. This should include but not be limited to a thorough description of emergency response actions, vapor abatement, and free product removal.
2. Describe the methods and procedures that would be used to conduct an initial site investigation at a site. Discuss how field screening methods might be applied during assessment activities to provide for faster and less costly site assessment.

3. Discuss how a comprehensive investigation will be conducted to determine full horizontal and vertical extent of contamination. Include a discussion on the determination of rate and direction of contaminant migration and appropriate testing procedures for determining aquifer characteristics.
4. Provide a discussion of different monitoring well types and the proper use of each type in the assessment of groundwater contamination.
5. Provide a description of the various hydrogeologic regimes in the State of Alabama and how these regimes affect the way soil and groundwater assessments of petroleum contaminated sites should be conducted.
6. Discuss corrective action technologies for soil and groundwater including the applicability, advantages, and disadvantages of different methods. Discuss innovative technologies and how these technologies may or may not be technically appropriate to provide cleaner, faster and more effective cleanups based on site conditions.
7. Include a discussion on risk-based corrective action and the criteria and procedures that would be considered in evaluating risk and developing risk-based target levels for remediation at petroleum sites.
8. Discuss how the safety of personnel would be addressed while working at a petroleum contaminated site as well as any safety training required, safety equipment required under different site conditions and necessary public safety contacts that will be notified in case of an emergency.

D. PROJECT ORGANIZATION AND MANAGEMENT

A discussion of the firm's organizational capabilities as well as an organizational chart must be included **which clearly represents the firm's capability to provide all the services indicated in Attachment I**. All subcontractors must be identified, and their intended scope of work clearly detailed. List which firms are MBE or WBE firms, if applicable. The organizational chart must clearly indicate which individuals and their associated firms will be responsible for the following response actions:

- Emergency Response: (Firm name and address)
- Tank/Line Testing Services: (Firm name and address)
- Analytical Laboratory(s): (Name and address of laboratories performing the analyses)
- Groundwater Investigative Services: (Firm and individual names, and addresses)
 - Geologists:
 - Engineers:
 - Other:

- Groundwater and Soils Corrective Action Services: (Firm and individual names, and addresses)
 - Geologists:
 - Engineers:
 - Other:

- Drilling Firms: (Name and address of drilling firms performing the drilling operations)

- Management methods must be discussed relating to:
 - Use of Subcontractors
 - Cost Control
 - Schedule Control
 - Project Tracking
 - Data Management

Submittal of cost data is not required at this time.

Selected firms will be required to submit a Quality Assurance Project Plan for site work that outlines the firm's procedures that ensure quality data is collected and submitted to the Department (See Section F. and Attachment IV).

E. PAST PERFORMANCE OF INVESTIGATIVE AND CORRECTIVE ACTION SERVICES AT PETROLEUM CONTAMINATED SITES OR SITES WITH SIMILAR ORGANIC SOIL AND GROUNDWATER CONTAMINATION

Using the attached Form B format, list sites where abatement, investigative and/or corrective action services beyond soil excavation have been provided during the last three (3) years. Please list as many sites as possible on each sheet. UST sites should be listed before non-UST groundwater sites. Experience gained while previously employed by another firm may be indicated, as long as it was gained within the three year time period indicated above.

The Department will be looking for significant demonstration of experience in the areas of hydrogeological investigations and corrective actions. The "Project Personnel" column should only list the names of the project personnel who have a resume included in Section B above. If the project listed was performed while previously employed by another firm, then only the name of the one employee gaining that experience should be listed under "Project Personnel". The "Project Responsibilities" column on the form must be completed for all personnel indicated for each project. Indicate responsibilities by designating an "S" for supervision, "M" for project management, "D" for design, "R" for report and plan preparation, "F" for field work, and "O" for other. The "UST OR GW Project" column should list either "UST" for those sites where investigations/remediation occurred due to releases from USTS and should list "GW" for those sites where investigations/remediation occurred due to releases from non-UST sources.

The percent of work that is accomplished by in-house personnel must be indicated. In other words, indicate the percent of all work that is not subcontracted to other firms. If the work listed was performed while employed by another firm, indicate zero percent in this column. Finally, mark an "X" on the form under each specific experience category that is applicable to experience gained at each site.

F. QUALITY ASSURANCE PROJECT PLAN

Each firm should submit a quality assurance project plan (QAPP) that is specific to performing investigative and corrective actions at petroleum UST release sites in Alabama. General guidelines for the preparation of the project plans are located at <https://www.epa.gov/sites/production/files/2016-06/documents/r2-final.pdf>. The “EPA Requirements for Quality Assurance Project Plans, EPA QA/R-5” should be utilized in preparation of the firms’ QAPP as well as the current version of the Department’s Quality Assurance Program Plan (QAPP) for the Underground Storage Tank LTF Program in Alabama (available on the ADEM website located in Water Programs, Groundwater, UST Program). Your firm’s draft QAPP should be submitted as a separate document with the technical proposal. Those firms who are selected for a contract will be required to have an approved QAPP which meets the Department’s requirements before the beginning of data collection. Please utilize the attached checklist (Attachment IV) while developing the draft QAPP and submit the checklist with the draft QAPP to the Department. The Department will provide comments regarding the submitted QAPPs to the firms who are selected for contractual agreements.

II. *Firms Will be Considered for Interviews and Potential Contracts Upon Satisfaction of the Following:*

- A. The firm receives a satisfactory rating from the Department's evaluation of the technical proposal using the following criteria.
 1. Background and Experience of Personnel Who Will Perform the Work
 2. Knowledge of Technical Considerations Necessary to Perform Petroleum Contamination Assessments
 3. Project Organization and Management
 4. Past Performance of Investigative and Corrective Action Services at Petroleum Contaminated Sites or Sites with Similar Organic Soil and Groundwater Contamination
 5. Acceptable draft QAPP and checklist

- B. Interviews will be conducted at the ADEM Montgomery offices with representatives of the firms whose proposals received the highest evaluations. The number of contracts awarded is at the discretion of the Department. No minimum amount of work is guaranteed to result from the execution of a contract to provide the identified services.

Firms will be expected to adhere to the current Alabama Aboveground and Underground Storage Tank Trust Fund reasonable rates in effect at the time of the contract award.

III. General Information

The deadline for receipt of Technical Proposals is **July 28, 2017 5:00 p.m.**

- A. **Three copies** of the technical proposals shall be submitted by certified mail or other delivery method which provides the applicant a receipt to:

Ms. Dorothy Malaier
ADEM Groundwater Branch
Post Office Box 301463
Montgomery, AL 36130-1463

Physical Address:
ADEM
1400 Coliseum Boulevard
Montgomery, Alabama 36110

- B. One original signed transmittal letter must accompany all copies of the technical proposal submitted. This letter shall provide the name, title, address and telephone number of the official contact and the alternate contact.
- C. Technical proposals will be independently evaluated by members of a review committee consisting of Department supervisory and/or senior staff members and according to the criteria of Section II-A of these instructions. The top ranked firms will be invited for interviews for contract consideration.
- D. The Department will acknowledge in writing the receipt of all technical proposals. The evaluation process is expected to be completed by **September 1, 2017**. The Department will notify all firms submitting proposals of the results of their evaluation.
- E. Misrepresentation of any information in a proposal or future technical submittal shall be cause for disqualification of a firm from further contract consideration.
- F. The Department limits pass-through charges of subcontracted work to a maximum of 10% of the subcontracted charges. System installation and purchase charges and some other remediation charges are limited to a 5% pass-through. Invoices for subcontracted work will be required to have been paid prior to seeking payment from the Department. Contractors are encouraged to seek monthly payments under the contract.
- G. The Department limits mileage reimbursement for one trip to 450 miles one way and 900 miles round trip.
- H. Contractors selected through this procurement process will be expected to make reasonable attempts to notify potential Minority Business Enterprises (MBE) and Women Business Enterprises (WBE) of subcontracting opportunities when their proposals for services are sufficient and financially competitive. Efforts to notify and obtain services of these firms must be documented to the Department on a quarterly basis.
- I. The Department has established reasonable rates for certain response actions under the Alabama Underground and Aboveground Storage Tank Trust Fund. Approval of costs for items not listed on

the rate schedule will be evaluated on a case-by-case basis. The current rate schedule is located on the Department website at www.adem.alabama.gov.

- J. Contracts will be for two-year periods. The submitted proposals will be used for 2 2-year contract periods. Renewal of a contract is subject to contractual performance.
- K. Selected firms will be expected to provide proof of insurance in the amounts listed in ADEM Admin. Code R. 335-6-16-.16(1) (b).
- L. To address questions regarding these instructions, please contact:

Dorothy S. Malaier, Chief
UST Corrective Action State and Federal Funds Section
Groundwater Branch
Land Division
P.O. Box 301463
Montgomery, Alabama 36130-1463
(334)270-5613
Fax (334)270-5631
dsm@adem.alabama.gov

ATTACHMENT I

Firms that perform ADEM LUST Trust Fund work must have the capability of providing the following services for the Department:

1. Taking initial actions necessary to prevent further release of product to the environment; preventing further migration of the release substance into surrounding soils and groundwater; mitigating any additional fire and safety hazards; and remedying hazards posed by contaminated soils.
2. Performing initial site assessments.
3. Implementing free product removal, where free product is present.
4. Performing additional site assessments which determine the lateral and vertical extent of contamination necessary to fully evaluate routes of exposure and to develop corrective action limits for soil and groundwater.
5. Develop alternate corrective action limits based on the Alabama Risk-Based Corrective Action (ARBCA) approach.
6. Preparing and implementing a Corrective Action Plan, where required by the Department.
7. Providing an alternate or temporary source of drinking water where required by the Department.
8. Analyses of soil and groundwater in accordance with the ADEM and EPA protocols, either directly or through a subcontractor.
9. Preparation of cost proposals and payment requests for response actions in accordance with established ADEM policies and procedures.

ATTACHMENT II

ADEM ALABAMA TANK TRUST FUND MAXIMUM ALLOWABLE RATES

February 2016

Alabama Tank Trust Fund Maximum Allowable Rates

2016

Project Manager	\$99.00
PE/PG	\$115.00
Staff Geologist/Engineer	\$83.00
Scientist	\$77.00
Technician	\$60.00
Draftsman	\$60.00
Clerical	\$49.00

Per Diem Daily	\$11.25
Per Diem Extended	\$30.00
Per Diem Overnight	\$75.00

Disposable Bailers	\$7.00	/ea
55 Gallon Drums	\$50.00	/ea
Expendables*	\$50.00	/sow
Air Compressor	\$25.00	/day
Combustible Gas Indicator/PID/FID	\$50.00	/day
Conductivity Meter	\$10.00	/day
Digital Manometer	\$10.00	/day
Dissolved Oxygen Meter	\$10.00	/day
Gloves	\$5.00	/day
Generator (5K)	\$25.00	/day
Submersible Pump	\$30.00	/day
Pressure Transducer/data logger	\$100.00	/day
Interface Probe/Water Level	\$10.00	/day
Flow Meter (anemometer)	\$10.00	/day
Metal Detector	\$10.00	/day
Ozone Meter/Sensor	\$10.00	/day
Pump-Peristaltic or Purging (inc. tubing)	\$50.00	/day
pH/Temperature Meter	\$10.00	/day
Pressure Washer	\$25.00	/day
Redox/ORP Meter	\$10.00	/day
Multimeter	\$100.00	/day
Thermal Anemometer	\$10.00	/day
Turbidity Meter	\$10.00	/day
Concrete Saw	\$25.00	/sow
Encore Samplers	\$9.00	/sampler
O&M Expendables**	\$25.00	/day
Skidsteer (750max/week)	\$250.00	day
Well Development Expendables	\$15.00	/day
Emergency Response Multiplier	1.5	times

Postage	
Postage Class I	\$85.00
Postage Class II	\$50.00

Analytical with Methods			
		water	soil
BTEX/MTBE/Naph	8260; 8021; 602	\$65.00	\$65.00
PAH	610	\$130.00	
	8310;8270	\$130.00	\$130.00
PAH Water Supply	525.1	\$275.00	
VOC Water Supply	524.2	\$150.00	
	8260	\$65.00	
1,2 Dibromoethane (EDB)	504.1	\$65.00	
	524.2	\$150.00	
	8011	\$65.00	
1,2 Dichloroethane (EDC)	8260	\$65.00	\$65.00
	504.1	\$65.00	
	524.2	\$150.00	
Lead	239.2; 7421	\$25.00	\$25.00
	6020	\$15.00	\$15.00
TPH	5520		\$60.00
	418.1/9071		\$50.00
	8015 GRO		\$80.00
	8015 DRO		\$95.00
Oil & Grease	9071;5520	\$50.00	
Dry Bulk Density	ASTM 2473	\$20.00	
Grain Size Analysis		\$40.00	
FOM	ASTM 2974	\$40.00	
Moisture Content	ASTM 2216	\$15.00	
Specific Gravity	ASTM D854	\$20.00	
Nitrate		\$20.00	
Sulfate		\$20.00	
Iron		\$20.00	
Air Samples	8260	\$100.00	
TCLP		\$100.00	
Ethanol	8015D;8260	\$65.00	
Methanol		\$65.00	
Chloride			
Foaming Agent			
Total Organic Carbon			
Total Dissolved Solids			

Pass Through Amount	
Other than System Purchase/ Install	10.00%
System Purchase/ Install	5.00%

Alabama Tank Trust Fund Maximum Allowable Rates

2016

Drilling	
Mob/Demob amount	\$200.00
Mileage rate per mile (current State rate)	
Well Completion MW 8" cover	\$150.00
Well Completion MW 12" cover	\$200.00
RW/EW vault abandonment (removal)	\$400.00
RW/EW vault abandonment (fill in place)	\$165.00
2" Monitoring Well (HAS) per foot	\$43.00
4" Monitoring Well (HAS) per foot	\$45.00
Soil Boring (HAS) per foot	\$22.00
Temp Wells	\$28.00
Rock Drilling 2" Well	\$55.00
Rock Drilling 4" Well	\$60.00
Rock Coring	\$38.00
Type III Well	\$95.00
Direct Push Technologies	\$1,800.00
Direct Push Well Materials	\$5.00
MW/RW Pad removal	\$75.00
2" MW/RW Abandonment per foot overdrill	\$25.00
MW/RW Abandonment remove top of casing	\$10.00
4" MW/RW Abandonment per foot overdrill	\$30.00
Shelby Tubes	\$50.00
Rolloff dumpster	
Drilling Device Driven (4 x's mileage rate)	
Drilling Device Hauled (2 x's mileage rate)	

* for scope of work (i.e. Preliminary is one scope)

** includes influent and effluent sampling

Permit Application	
NPDES General Permit	
UIC Permit	
Solid Waste Profile (form 300)	

ATTACHMENT III

FORM A AND B

These forms are also available on the ADEM website.

FORM A - Brief Resume of Key Professionals such as Geologists, Engineers, and Environmental Scientists who will be active in Alabama Tank Trust Fund Projects

a. Name and Title:	i. Experience			
b. Name and Location of Firm with which associated:	Project Experience	Approximate Number of UST Projects	Approximate Number of Groundwater Projects	Use codes to identify the project responsibilities: (S) Supervision (M) Project Management (D) Design (R) Report Preparation (F) Field Work (O) Other
c. Part Time () Full Time () employee with above firm				
d. Name and location of other firms with which you are currently employed				
e. Proposed Trust Fund Project Responsibilities () Supervision () Data Evaluation and Report Prep () Project Management () Field Work () Design () Other:				
f. Education Type of Degree and Subject: Year Degree Awarded: College/University Where Degree(s) Obtained:	Initial Abatement Phase			
	Emergency Response			
	Tank and Line Testing			
	Free Product Recovery			
	Soil Excavation/Treatment/Disposal			
	Investigation Phase			
	UST Closure Assessment			
	Water Well Inventory			
	Soil Gas Investigation			
	Soil Boring Logging			
	Soil Boring Sampling			
	Soil Analysis			
	Monitoring Well Installation			
	Monitoring Well Sampling			
	GW Sample Analysis			
	Potentiometric Surface Mapping			
g. Active Registrations. List State and License/Registration Numbers.	Aquifer Characterization			
	Indoor Vapor Intrusion Evaluation			
	Corrective Action Phase			
	Contaminant Plume Modeling			
	Develop Corrective Action Plan			
	Design GW Treatment System			
	Design Soil Treatment System			
h. Years of Investigative/Corrective Action Experience _____ UST Experience: _____ Groundwater Experience: _____ With this firm: _____ With other firms: _____	Install GW Treatment System			
	Install Soil Treatment System			
	O&M GW Treatment System			
	O&M Soil Treatment System			
	Risk Assessment			
	Monitoring Well Abandonment			

ATTACHMENT IV

LUST Trust Fund Technical Proposal QAPP Checklist

The checklist is also available on the ADEM website.

ADEM LTF Contractor QAPP Review Checklist

Title: _____ Date Submitted for Review: _____

Proposal Preparer: _____ Date of Review: _____

ADEM Reviewer: _____

*Review: A= Adequately Addressed U=Unacceptable NI=Not Included NA=Not Applicable

Item #	Element	Contractor: QAPP Section # & Page # Where Addressed	ADEM: Review/Comment*
A-1. Title and Approval Page			
1	Title of QAPP, Revision #, Revision Date		
2	Company Name include organization preparing the QAPP and the organization conducting the project		
3	Dated signature of Project Manager		
4	Dated signature of QA Manager/Officer		
5	Other signatures as needed		
A-2. Table of Contents			
6	Includes any tables, figures and appendices		
A-3. Distribution List			
7	Includes addresses/emails of all entities or agencies (Including Labs) who are to receive a copy of the QAPP (including ADEM)		
A-4. Project/Task Organization			
8	Identifies key personnel (including titles, roles/responsibilities and organizational affiliation) that may be involved in all major aspects of QAPP activities, including project manager, decision makers, QA Manager/Officer, contractors/subcontractors, laboratories, etc.		
9	Describes the project QA Manager/Officer independence		
10	Identifies individual responsible for maintaining the official approved QAPP		
11	Includes Organization Chart showing lines of authority and reporting responsibilities including entries for all agencies, contractors/sub-contractors and individuals responsible for performing environmental work or oversight responsibilities		
A-5. Project/Task Description			
12	Specifies the environmental program under which the project is conducted		
13	Includes overview of sample collection and measurement activities that should be covered by this QAPP.		
14	Lists all measurements that may be made: including on-site field measurements, meteorological measurements and off-site laboratory measurements.		
15	Identifies equipment and personnel requirements necessary to conduct potential measurements.		
16	Includes <u>typical</u> project work schedule for all tasks including activities such as field preparation, sampling, analysis, and report preparation.		

Item #	Element	Contractor: QAPP Section # & Page # Where Addressed	ADEM: Review/Comment*
17	Identifies those items that cannot be addressed in this QAPP and would be included in each <i>Scope of Work</i> generated for each <i>Work Order</i> (such as <i>sampling locations, number of samples, etc</i>)		
18	Identifies all typical required project reports and QA documents		
A-6. Quality Objectives and Criteria for Measurement Data			
19	States the data quality objective processes (such as EPA DQO process) that should be followed (depending on the complexity of the work order). States that the results of the process used should be included in a <i>Scope of Work</i>		
20	Includes discussion of how precision, bias, accuracy, representativeness, comparability, completeness, and sensitivity are addressed in sampling, measurements, and/or analysis.		
21	Cites applicable regulatory criteria or action limits.		
A-7. Special Training / Certifications			
22	Identifies training requirements for typical project and how those requirements are met and documented.		
23	Identifies special licenses or certifications that are required by personnel or laboratories to perform duties as required by federal laws, State laws, or contract stipulations.		
24	Identifies where training and certification records will be maintained		
25	Identifies how any new training requirements are communicated to project management		
A-8. Documentation and Records			
26	Describes how the most current version of this QAPP and associated project and quality documents (incl. SOPs) are distributed to project staff		
27	Includes a comprehensive list of the documents and records typically required for a project (such as: sample collection records, field records, analytical records, data records, billing receipts, audit reports, analytical data reports)		
28	Includes content requirements for hardcopy lab data packages and electronic data requirements.		
29	Specifies the retention time and location of project records, reports, and project documents		
B-1. Sampling Process Design			
30	Identifies the process for developing the sampling design and where that process is documented		
B-2. Sampling Methods			
31	Includes (for each anticipated sampling media) potential sample collection procedures/protocols/methods. If these are included in SOPs, reference them and place a copy of the SOP in the appendix.		
32	Provides a list of all sampling equipment required to collect potential samples (Incl. make and model of equipment)		
33	Identifies all on-site support facilities required for sampling		
34	Identifies key project personnel in charge of overseeing sampling activities		
35	Describes equipment decontamination procedures and requirements		

Item #	Element	Contractor: QAPP Section # & Page # Where Addressed	ADEM: Review/Comment*
36	Provides a table identifying potential analytical method numbers and the associated sample container requirements and preparation requirements for these containers (if provided by the laboratory clearly states such), sample preservation requirements, sample volume requirements, and holding time criteria		
B-3. Sample Handling and Custody			
37	Provides a detailed description of the procedures for sample handling once the sample has been collected (including shipping, if applicable)		
38	Provides a detailed description of the chain-of-custody procedures and a copy of the form(s) used.		
B-4. Analytical Methods			
39	Provides a table identifying the potential analytes of interest and associated analytical method number(s), media type (if method-specific), required detection limits, and performance QC criteria		
40	Clearly identifies potential analytical instrumentation required		
41	If any non-standard or unpublished methodologies may be used, provides the validation criteria.		
42	Identifies individuals responsible for overseeing the successes of the analysis and for implementing corrective actions if deemed necessary		
43	Specifies the typical turnaround time for hardcopy and electronic data deliverables.		
44	Includes a listing and description of any certifications held by analytical laboratory(s) used		
45	Includes laboratory QC Manual(s) for analytical laboratory(s) used as an appendix.		
B-5. Quality Control			
46	Identifies QC procedures and frequency for each sampling, analysis, or measurement technique, as well as associated acceptance criteria and corrective actions. (e.g. blanks, replicates, spikes, calibration checks, PTs)		
47	Provides or references the procedures used to calculate QC statistics for precision and bias		
B-6. Instrument/Equipment Testing, Inspection, and Maintenance			
48	Provides a list of all onsite testing instruments and field equipment and the associated required periodic maintenance and/or inspection and the schedule for such.		
49	Identifies acceptance testing criteria for field instruments or sampling equipment		
50	Describes corrective maintenance practices to ensure that equipment/instruments are performing within the required specifications.		
51	Identifies the availability and location of spare parts		
B-7. Instrument/Equipment Calibration and Frequency			
52	Identifies all equipment/instruments requiring calibration		
53	Provides the calibration frequency requirements and calibration acceptance criteria for each type of equipment or instrument		

Item #	Element	Contractor: QAPP Section # & Page # Where Addressed	ADEM: Review/Comment*
54	Identifies the type of documentation required for calibrations and instrument checks. Discusses how calibrations are traceable back to the calibration solutions and instrument		
B-8. Inspection/Acceptance of Supplies and Consumables			
55	Provides a comprehensive list of the solvents, reagents, buffer solutions and other consumable or supplies potentially required for a project.		
56	Provides acceptance criteria for supplies and consumables		
57	Provides a list of individuals responsible for checking and inspecting supplies and consumables		
B-9. Non-Direct Measurements			
58	Identifies the types of existing data (if any) that may be used in the project (existing: not directly measured or generated in this project).		
59	Identifies the source(s) of these data		
60	Describes intended use, rationale, and limitations of using these data.		
61	Specifies how any data limitations will be communicated to the end users		
B-10. Data Management			
62	Describes the standard record-keeping, data archival, and retrieval requirements for hardcopy and electronic information produced during the course of a project.		
63	Describes the document control system		
64	Provides checklists or other standard forms in an appendix		
65	Identifies data handling equipment and procedures used to process, compile, and analyze data (required computer hardware and software) specifies whether computer databases will have restricted access or will be password protected		
C-1. Assessments/Audits and Response Actions			
66	Lists the typical schedule and type of assessments (audits) conducted. May include a discussion of “graded-approach” to assessment application. [Types of assessments may include but are not limited to: peer review, technical audits, surveillance, management system reviews, readiness reviews, quality system audits, performance evaluations, proficiency testing (PT), data quality assessments, etc.]		
67	Identifies the individuals performing these assessments/audits, discusses the authority and independence of these individuals in relation to the entities being assessed and indicates their authority to issue stop work orders		
68	Identifies how and to whom assessment/audi/information is reported		
69	Discusses where audit findings will be documented and how/by whom the audit findings should be communicated to all key project personnel or associated agencies responsible for project oversight.		
70	Provides a description of the types of corrective actions that may be instituted to resolve any issues raised during an audit and how they should be verified and documented.		

Item #	Element	Contractor: <i>QAPP Section # & Page # Where Addressed</i>	ADEM: <i>Review/Comment*</i>
C-2. Reports to Management			
71	Identifies what project status reports are needed and the frequency (Includes internal and contract-required)		
72	Identifies the types of information that should be included in project status reports (assessment/audit reports, PT results, calibration reports, project results, etc.)		
73	Identifies the individuals responsible for preparing and reviewing and who should receive these reports		
D-1. Data Review, Verification, and Validation			
74	Describes criteria that should be used for accepting, rejecting, or qualifying project data.		
75	Provides a comprehensive list of the data flags or data qualifiers that will be assigned to non-compliant data (including the definitions for each of these flags)		
D-2. Verification and Validation Methods			
76	Describes process for data verification and validation or includes as an appendix the guidance document or SOP governing the data verification and validation process.		
77	Identifies the individuals responsible for validating the different components of the project data.		
78	Identifies issue resolution process, and the method and individual responsible for reporting these results to the data user.		
D-3. Reconciliation with User Requirements			
79	Describes the process for reconciling project results to project requirements and objectives (DQOs as applicable) as stated in the QAPP, contract or associated work order.		
80	Identifies the individuals responsible for reconciling the data and how results will be documented and communicated to all end data users		