

Request for Bid
Fixed-Price Bid to Result
Risk-Based Closure via Site Specific Standards

Solicitor

Jake Schneider

Jake Schneider's Garage

1609 Smith Township Road

Route 18 North

Atlasburg, Pennsylvania 15004

PADEP Facility ID #: 63-30485 PAUSTIF Claim #: 1999-0571(F)

Date of Issuance

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The Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF), on behalf of the claimant who hereafter is referred to as the Client or Solicitor, is providing this Request for Bid (RFB) to prepare and submit a bid to complete the Scope of Work (SOW) for the referenced site. The Solicitor has an open claim with the PAUSTIF and the corrective action work will be completed under this claim. Reimbursement of Solicitor-approved, reasonable and necessary costs up to claim limits for the corrective action work described in this RFB will be provided by PAUSTIF subject to 90% proration with the remaining 10% to be paid by the solicitor. Solicitor is responsible to pay any applicable deductible and/or proration.

Each bid response will be considered individually and consistent with the evaluation process described in the PAUSTIF Competitive Bidding Fact Sheet, which can be downloaded from the PAUSTIF website <http://www.insurance.pa.gov>.

Calendar of Events

| Activity | Date and Time |
|---|------------------------------|
| Notification of Intent to Attend Site Visit | February 7, 2014 by 5 p.m. |
| Mandatory Pre-Bid Site Visit | February 11, 2014 at 11 a.m. |
| Deadline to Submit Questions | March 5, 2014 by 5 p.m. |
| Bid Due Date and Time | March 13, 2014 by 3 p.m. |

Contact Information

| ICF International | Solicitor | Technical Contact |
|---|--|--|
| Ms. Jolene Cramer Claim Investigator ICF International 4000 Vine Street Middletown, PA 17057 | Mr. Jake Schneider 1609 Smith Township Road Atlasburg, PA 15004 | Mr. Joseph Ozog, Jr., P.G. Excalibur Group, LLC 91 Park Avenue Windber, PA 15963 joseozog@excaliburgrpilc.com |

All questions regarding this Request for Bid (RFB) and the subject site conditions must be directed via e-mail to the Technical Contact identified above with the understanding that all questions and answers will be provided to all bidders. The email subject line must be “[insert site name and claim number provided on cover page] – RFB QUESTION”. Bidders must neither contact nor discuss this RFB with the Solicitor, PAUSTIF, the Pennsylvania Department of Environmental Protection (PADEP), or ICF International (ICF) unless approved by the Technical Contact. Bidders may discuss this RFB with subcontractors and vendors to the extent required for preparing the bid response.

Requirements

Mandatory Pre-Bid Site Meeting

The Solicitor, the Technical Contact, or their designee will hold a mandatory site visit on the date and time listed in the calendar of events to answer questions and conduct a site tour for one participant per bidding company. This meeting is mandatory for all bidders, no exceptions. This meeting will allow each bidding company to inspect the site and evaluate site conditions. **A notice of the bidder's intent to attend this meeting is requested to be provided to the Technical Contact via email by the date listed in the calendar of events with the subject "[insert site name and claim number provided on cover page]– SITE MEETING ATTENDANCE NOTIFICATION".** The name and contact information of the company participant should be included in the body of the e-mail.

Submission of Bids

To be considered for selection, **one hard copy of the signed bid package and one electronic copy (one PDF file on a compact disk (CD) included with the hard copy) must be provided directly to the PAUSTIF's third party administrator, ICF, to the attention of the Contracts Administrator.** The Contracts Administrator will be responsible for opening the bids and providing copies to the Technical Contact and the Solicitor. Bid responses will only be accepted from those companies that attended the mandatory pre-bid site meeting. **The ground address for overnight/next-day deliveries is ICF International, 4000 Vine Street, Middletown, PA 17057, Attention: Contracts Administrator. The outside of the shipping package containing the bid must be clearly marked and labeled with "Bid – Claim # [insert claim number provided on cover page]".** Please note that the use of U.S. Mail, FedEx, UPS, or other delivery method does not guarantee delivery to this address by the due date and time listed in the Calendar of Events for submission. Companies mailing bids should allow adequate delivery time to ensure timely receipt of their bid.

The bid must be received by 3 p.m., on the due date shown in the Calendar of Events. Bids will be opened immediately after the 3 p.m. deadline on the due date. Any bids received after this due date and time will be time-stamped and returned. If, due to inclement weather, natural disaster, or any other cause, the PAUSTIF's third party administrator, ICF's office is closed on the bid due date, the deadline for submission will automatically be extended to the next business day on which the office is open. The PAUSTIF's third party administrator, ICF, may notify all companies that attended the mandatory site meeting of an extended due date. The hour for submission of bids shall remain the same. Submitted bid responses are subject to Pennsylvania Right-to-Know Law.

Bid Requirements

The Solicitor wishes to execute a mutually agreeable contract with the selected consultant ("Remediation Agreement"). The Remediation Agreement is included as Attachment 1 to this Request for Bid. The bidder must identify and document in their bid any modifications that they wish to propose to the Remediation Agreement language in Attachment 1 other than obvious modifications to fit this RFB (e.g., names, dates and descriptions of milestones). The number and scope of any modifications to the standard agreement language will be one of the criteria used to evaluate the bid. **Any bid that does not clearly and unambiguously state whether the bidder accepts the Remediation Agreement language in Attachment 1 "as is", or that does not provide a cross-referenced list of requested changes to this agreement, will be considered non-responsive.** This statement should be made in a Section in the bid entitled "Remediation Agreement". Any proposed changes to the agreement should be specified in the bid; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PAUSTIF.

The selected consultant will be provided an electronic copy (template) of the draft Remediation Agreement in Microsoft Word format to allow agreement-specific information to be added. The selected consultant shall complete the agreement-specific portions of the draft Remediation Agreement and return the document to the Technical Contact within 10 business days from date of receipt.

The Remediation Agreement fixed costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors and other direct costs. The total cost quoted in the bid by the selected consultant will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable and necessary. There may be deviations from and modifications to this Scope of Work (SOW) during the project. The Remediation Agreement states that any significant changes to the SOW will require approval by the Solicitor, PAUSTIF, and PADEP. NOTE: Any request for PAUSTIF reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

The bidder shall provide its bid cost using the Bid Cost Spreadsheet (included as Attachment 2) with descriptions for each task provided in the body of the bid document. Please note if costs are provided within the text of the submitted bid and there is a discrepancy between costs listed in the Bid Cost Spreadsheet and in the text, the costs listed within the Bid Cost Spreadsheet will be used in the evaluation of the bid and in the Remediation Agreement with the selected consultant. Bidders are responsible to ensure spreadsheet calculations are accurate. **Note that bids will be scored technically based on those tasks/milestones included in the Bid Cost Spreadsheet and the total bid cost. Any optional milestones or cost adders that were not requested as part of this RFB will not be considered by the Bid Evaluation Committee in the technical review and technical score.**

In addition, the bidder shall provide:

1. The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs, and equipment;
2. The bidder's proposed markup on other direct costs and subcontractors (if any);
3. The bidder's estimated total cost by task consistent with the proposed SOW identifying all level-of-effort and costing assumptions; and
4. A unit rate schedule that will be used for any out-of-scope work on this project.

Each bid will be assumed to be valid for a period of up to 120 days after receipt. The costs quoted in the Bid Cost Spreadsheet will be assumed to be valid for the duration of the Remediation Agreement.

Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable". These variable cost items will not be handled outside of the total fixed price quoted for the SOW. Any bid that disregards this requirement will be considered non-responsive to the bid requirements and, as a result, will be rejected and will not be evaluated.

Each bid response document must include at least the following:

1. Demonstration of the bidder's understanding of the site information provided in this RFB, standard industry practices, and objectives of the project.
2. A clear description, specific details, and original language of how the proposed work scope will be completed for each milestone. The bid should specifically discuss all tasks that will be completed under the Remediation Agreement and what is included (e.g., explain groundwater purging/sampling methods, which guidance documents will be followed, what will be completed as part of the site specific work scope/SCR/RAP implementation). Recommendations for changes/additions to the Scope of Work proposed in this RFB shall be discussed, quantified, and priced separately; however, failure to bid the SOW "as is" may result in a bid not being considered.
3. A copy of an insurance certificate that shows the bidder's level of insurance consistent with the requirements of the Remediation Agreement. Note: The selected consultant shall submit evidence to the Solicitor before beginning work that they have procured and will maintain Workers Compensation; commercial general and contractual liability; commercial automobile liability; and professional liability insurance commensurate with the level stated in the Remediation Agreement and for the work to be performed.
4. The names and brief resumes/qualifications of the proposed project team including the proposed Professional Geologist and Professional Engineer (if applicable) who will be responsible for overseeing the work and applying a professional seal to the project deliverables (including any major subcontractor(s)).

5. Responses to the following specific questions:
 - a. Does your company employ a Pennsylvania-licensed Professional Geologist that is designated as the proposed project manager? How many years of experience does this person have?
 - b. How many Pennsylvania Chapter 245 projects is your company currently the consultant for in the PADEP Region where the site is located? Please list up to ten.
 - c. How many Pennsylvania Chapter 245 Corrective Action projects involving an approved SCR, RAP and RACR has your company and/or the Pennsylvania-licensed Professional Geologist closed (i.e., obtained Relief from Liability from the PADEP) using any standard?
 - d. Has your firm ever been a party to a terminated PAUSTIF-funded Fixed-Price (FP) or Pay-for-Performance (PFP) contract without attaining all of the Milestones? If so, please explain.
6. A description of subcontractor involvement by task. Identify and describe the involvement and provide actual cost quotations/bids/proposals from all significant specialized subcontracted service (e.g., drilling/well installations, laboratory, etc.). **If a bidder chooses to prepare its bid without securing bids for specialty subcontract services, it does so at its own risk. Added costs resulting from bid errors, omissions, or faulty assumptions will not be considered for PAUSTIF reimbursement.**
7. A detailed schedule of activities for completing the proposed SOW including reasonable assumptions regarding the timing and duration of Solicitor reviews (if any) needed to complete the SOW. Each bid must provide a schedule that begins with execution of the Remediation Agreement with the Solicitor and ends with completion of the final Milestone proposed in this RFB. Schedules must also indicate the approximate start and end of each of the tasks/milestones specified in the Scope of Work, and indicate the timing of all proposed key milestone activities.
8. A description of how the Solicitor, ICF and the PAUSTIF will be kept informed as to project progress and developments, and how the Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project.
9. A description of your approach to working with the PADEP. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed of activities at the site.
10. Key exceptions, assumptions, or special conditions applicable to the proposed SOW and/or used in formulating the proposed cost estimate. Please note that referencing extremely narrow or unreasonable assumptions, special conditions and exceptions may result in the bid response being deemed “unresponsive”.

General Site Background and Description

Each bidder should carefully review the existing information and documentation provided in Attachment 3. The information and documentation has not been independently verified. Bidders may wish to seek out other appropriate sources of information and documentation specific to this site. If there is any conflict between the general site background and description provided herein and the source documents within Attachment 3, the bidder should defer to the source documents.

Site Description / UST Release

The Site is located at 1609 Smith Township State Road (Route 18) in Atlasburg, Washington County, Pennsylvania (also referred to as “the Property”). The approximately $\sim\frac{1}{4}$ -acre Site is in a mixed residential / commercial area within the small community of Atlasburg. The Site is located along the southwest side of Route 18 near the corner of Route 18 and Cross Creek Road (see Figure 1, Attachment 3a).

The Site is currently owned by the Solicitor, with operations that include the dispatch operations and maintenance of cars and light vans used in commercial transportation (“Jake Schneider’s Garage”). Historically, the Site was originally developed in the 1960’s and operations included automobile repair and retail gasoline sales. The underground storage tank (UST) system included two 3,000-gallon gasoline tanks (Tank 001 and 002) and one 550-gallon tank (unknown contents) and a single dispenser island which were used in the Site operations, and formerly located between the Site building and Route 18 (see Figures 2 and 3, Attachment 3a). The Solicitor purchased the property in the early 1980’s and continued to operate the UST system until December 1998, when the UST system was closed and then subsequently removed in December 1999. Currently, the Site continues to operate as a dispatch and maintenance facility for the light commercial vans and no longer has any petroleum retail operations. Light maintenance and repair work is conducted on cars and vans owned by Jake Schneider, which are used to transport school children.

The Solicitor / property owner was the registered tank owner / operator for Tanks 001 and 002, removed in December 1999. During the decommissioning & removal of the gasoline USTs, holes were observed in Tank 001 and pitting in Tank 002, and the unregistered 550-gallon UST was discovered positioned on the southeast side of the gasoline USTs. The 550-gallon tank (contents unknown) was also removed during the closure activities.¹ Extensive contamination in the form of strong odors and “heavy” staining was noted in the soil around the USTs; however, no over-excavation of the former tank cavity was conducted during closure activities, and excavated soils/fill materials (“both contaminated and uncontaminated”) were returned to the

¹ Condition of the 550-gallon UST at the time of removal is not provided.

tank cavity after UST removal.² No groundwater was encountered during the UST closure activities. The location for the former USTs is shown on Figures 2 and 3 as Attachment 3a.

Historical Site Characterization & Remedial Activities

Site characterization activities were initiated by August Environmental Inc. (AEI) in March 2000, following the discovery of the unleaded gasoline release in December 1999, and continued until late 2004. Activities by AEI included the advancement of 12 soil borings (SB-1 through SB-12); installation of 22 monitoring wells (MW-1 through MW-22); collection / analysis of 32 soil samples from both soil borings and monitoring well borings; light non-aqueous phase liquid (LNAPL) recovery events via hand bailing³; sensitive receptor survey; remedial feasibility testing (high vacuum dual-phase extraction); groundwater monitoring / sampling events; and collection / analysis of water samples from un-used private water well on the neighboring adjoining property⁴.

In May 2005 through to March 2006, PAUSTIF assisted Solicitor with preparing a competitive bid package to advance the site toward closure. As part of this effort, several additional site characterization and remedial feasibility activities were completed to address data gaps including advancing nine (9) soil borings (GP-1 through GP-9); installing three (3) monitoring wells; collecting / analyzing 18 soil samples from both soil borings and well borings; aquifer pump testing; and conducting groundwater monitoring / sampling events. Cira and Associates, LLC (C&A) subsequently won the competitive bid. In March 2007 through 2008, and into 2012, C&A performed remedial activities which included a source soil excavation extending 8 to 14 feet below grade through the overburden to weathered bedrock, followed by the installation of two replacement monitoring wells (MW-5A and MW-25A), post-remedial quarterly groundwater monitoring / sampling events, and a risk assessment. Locations for the soil borings, monitoring wells, and soil excavation limits are shown on Figures 2, 3, and 4 (Attachment 3a).

The site and adjacent property to the northwest are both underlain by varying thickness of fill material, which ranges in thickness from 1.5 to 6 feet. Natural soils consist predominantly of silty/sandy clay or silt coarsening downward to silty sand or sandy silt underlain by weathered sandy shale bedrock encountered anywhere from 6 to 16 feet below grade. More competent, less fractured sandy shale bedrock is encountered approximately 18 to 20 feet below grade.

Site groundwater is encountered within the overburden / weathered bedrock and in the competent sandy shale bedrock. Groundwater flow in the overburden / weathered bedrock is generally in a northwesterly direction. Competent bedrock groundwater is encountered within

² Pages 6 & 8, Underground Storage Tank System Closure Report Form, prepared by ES Environmental Remediation, dated December 27, 1999 (Attachment 3b).

³ Currently, LNAPL is not observed in any of the on- and off-property monitoring wells.

⁴ The un-used private water well is located on a property adjoining the northwest side of site, which is also owned by the Solicitor.

fractures at depths greater than 24 feet below grade. Generally, the competent bedrock groundwater flow is also in a northwesterly direction.

Historically, LNAPL had been observed in the overburden / weathered bedrock wells in the area of the former UST system. During the site characterization activities performed by AEI, the LNAPL was reportedly routinely recovered via hand bailing. Currently, in recent years, no LNAPL has been observed in any of the on- and off-property monitoring wells.

The source soil excavation was performed in the area of the former UST system between the Site building and Route 18, and extended onto the adjoining property to the northwest. Depth of the soil excavation ranged from 8 to 14 feet, with ~1,070 tons of material removed from the Site for disposal. A total of 12 post-excitation, biased, soil samples were collected from the completed sidewalls and floor of the excavation. Concentrations of benzene, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and 1,3,5-trimethylbenzene (1,3,5-TMB) exceeded their respective PADEP Statewide Health Standards (SHS) on the excavation bottom (in the area of the former UST cavity), northeast sidewall (adjoining Route 18), west sidewall (near Site building), and north and northwest sidewalls (on adjoining property to northwest). Monitoring wells MW-3, MW-4, MW-5, MW-9, MW-10, MW-23, MW-24, and MW-25 were removed during the excavation activities. Only two monitoring wells (MW-5 and MW-25) were replaced with the installation of wells MW-5A and MW-25A in the same general locations as the original wells. Excavation limits and soil sampling locations are shown on Figure 4 (Attachment 3a).

Based on the 4th quarter 2012 monitoring / sampling event, groundwater in multiple on-property monitoring wells continue to be impacted by benzene, ethylbenzene, MTBE, and naphthalene at concentrations exceeding SHS. Off-property exceedences are limited to MTBE in only one monitoring well (MW-16) on the adjoining property to the northwest. Monitoring wells have not been monitored / sampled since the 4th quarter 2012 event.

Solicitor's chosen closure approach for the Site is **Site-Specific Standards (SSS) for both soil and groundwater**.

A human health risk assessment (RA) was completed by Risk-based Remedies (RBR) on behalf of C&A in May 2012. Using post-excitation exposure point concentrations and assuming certain land use restrictions for Solicitor's property, the RA concluded that the residual site impacts do not pose an unacceptable current or future human health risks at the site or within Route 18. Restrictive covenants required for the site are: prohibition against use of groundwater as a source of drinking water; and non-residential uses of the property only. The adjacent residential property to the northwest is also owned by Solicitor, and this adjacent property is also to be protected by a deed notice precluding groundwater use, if necessary. However, it appears the RA did not adequately explore the risk of soil and groundwater impacts to this adjacent resident.

Key historical reports for this site include: AEI's preliminary environmental assessment reports dated June 2000 and August 2000; an Initial Site Characterization Report (Initial SCR), dated

February 2001; a SCR, dated July 2002; Remedial Action Plan (RAP), dated February 2003; SCR Addendum, dated March 2004; and Quarterly Monitoring Reports (QMRs). PADEP reviewed and approved AEI's SCR and RAP in May 2004; however, the RAP was never implemented⁵. A Supplemental Report was prepared on behalf of PAUSTIF in 2006 to present the additional site characterization and feasibility testing information for competitive bidding purposes. C&A subsequently prepared a Soil Excavation Completion Report, dated November 2007; quarterly Remedial Action Progress Reports (RAPR's); and a Health Risk Assessment report, dated May 2012. Copies of these reports are provided as Attachment 3b through 3h.

To the extent there is any discrepancy between the summary of site conditions provided above and the source documents, bidders shall rely on the source document information. Bidders should carefully consider what information, analyses, and interpretations contained in the background documents can be used in developing their scope of work for their bid in response to this RFB.

⁵ Some remediation system piping for a proposed dual-phase extraction system was installed at site; however, the installation was never completed and no other work elements of the RAP were initiated.

Scope of Work (SOW)

This RFB seeks competitive bids from qualified contractors to perform the activities in the Scope of Work (SOW) specified herein. PADEP – Southwest Regional Office (SWRO) was given the opportunity to review the SOW provided within this RFB; however, did not provide any comments on the SOW.

Objective

Solicitor seeks competitive, fixed-price bids, for this “Bid to Result” RFB to complete the remaining activities intended to take this site to closure, which is risk-based via SSS for both soil and groundwater. “Bid to Result” RFBs identify task goals and rely on the bidders to provide a higher level of project-specific detail on how they will achieve the goal. Each bid must detail the approach and specific methods for achieving the milestone objectives. In reviewing the quality of bids submitted under Bid to Result solicitations, there is an increased emphasis placed on technical approach and reduced emphasis on cost (as compared to bids for “Defined Scope of Work” RFBs).

Constituents of Concern (COCs)

The COC for soils, groundwater, and vapors are the post-March 2008 short list for unleaded gasoline, which consist of benzene, toluene, ethylbenzene, xylenes (BTEX); MTBE, cumene, naphthalene, 1,2,4-trimethylbenzene (1,2,4-TMB), and 1,3,5-trimethylbenzene (1,3,5-TMB).

General SOW Requirements

The bidder’s approach to completing the SOW shall be in accordance with generally accepted industry standards/practices and all applicable federal, state, and local rules, regulations, guidance, and directives. The latter include, but are not limited to, meeting the applicable requirements of the following:

- The Storage Tank and Spill Prevention Act (Act 32 of 1989, as amended);
- Pennsylvania Code, Title 25, Chapter 245 - Administration of the Storage Tank Spill and Prevention Program;
- The Land Recycling and Environmental Remediation Standards Act of 1995 (Act 2), as amended);

- Pennsylvania Code, Chapter 250 - Administration of Land Recycling Program; and
- Pennsylvania's Underground Utility Line Protection Law, Act 287 of 1974, as amended by Act 121 of 2008.

During completion of the milestone objectives specified below and throughout implementation of the project, the selected consultant shall:⁶

- Conduct necessary, reasonable, and appropriate project planning and management activities until the project (i.e., Remediation Agreement) is completed. Such activities may include Solicitor communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities (e.g., utility location). Project planning and management activities will also include preparing and implementing plans for Health and Safety, Waste Management, Field Sampling/Analysis, and/or other plans that are necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project planning and management shall include identifying and taking appropriate safety precautions to not disturb site utilities; including but not limited to, contacting Pennsylvania One Call as required prior to any ground-invasive work. As appropriate, project management costs shall be included in each bidder's pricing to complete the milestones specified below.
- Be responsible for coordinating, managing, and completing the proper management, characterization, handling, treatment, and/or disposal of all impacted soils, water, and derivative wastes generated during the implementation of this SOW. The investigation-derived wastes, including purge water shall be disposed of in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Waste characterization and disposal documentation (e.g., manifests) shall be maintained and provided to the Solicitor and the PAUSTIF upon request.
 - **If the site is located in PADEP Southwest Region:** All investigation derived wastes shall be handled and disposed of per PADEP's Southwest Regional Office guidance. Investigation derived wastes include personal protective equipment, disposable equipment, soil and drill cuttings and groundwater obtained through monitoring well development and purging, as well as equipment decontamination fluids. Investigation derived wastes must be containerized in DOT-approved drums and staged on-site in a pre-determined location, pending results of

⁶ As such, all bids shall include the costs of these activities and associated functions within the quote for applicable tasks/milestones.

laboratory analyses and selection of final disposal method(s). Each container must be labeled to indicate contents, site location and date of generation. It is the selected consultant's responsibility to conform with current PADEP Southwest Regional Office guidance requirements.

- **If the site is located in any PADEP Region other than Southwest:** All investigation derived wastes shall be handled and disposed of per PADEP's Regional Office guidance. It is the selected consultant's responsibility to conform with current PADEP Regional Office guidance requirements in the region where the site is located.
- Be responsible for providing the Solicitor and facility operator with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and facility operator to ensure that appropriate areas of the property are accessible. Return visits to the site will not constitute a change in the selected consultant's SOW or result in additional compensation under the Remediation Agreement.

Site –Specific Milestones

Milestone A – Supplemental Site Characterization Activities. This milestone provides bidders the opportunity to identify which additional site characterization work will be completed in advance of finalizing the remedial approach design and moving ahead with its implementation. Conducting supplemental investigative activities under this milestone is mandatory. PAUSTIF will be reimbursing up to \$10,000 for supplemental site characterization and reporting costs under this milestone. Bidders are to describe what supplemental site characterization will be completed, the rationale for the work and how the derived data will be used. For purposes of bidding, and to ensure consistent cost scoring of bids, each bidder will enter exactly \$10,000 as the bid price for Milestone A in the Bid Cost Spreadsheet. PAUSTIF will only reimburse up to \$10,000 of reasonable and necessary costs for those tasks actually performed. The selected bidder must provide time and material documentation in addition to supporting documentation required (in Exhibit C of the executed Remediation Agreement) to support the requested reimbursement and completion of this milestone.

Bidders may use this opportunity to: 1) confirm any elements of the site characterization completed by the previous consultants; 2) address any perceived data gaps in the existing site characterization work; 3) assist in the evaluation and determination of the remedial approach; and 4) assist with refining the cleanup timeframe estimate and/or other reasons related to validating the bidder's remedial approach.

For example, a bidder may wish to:

- Perform two groundwater monitoring and sampling events to confirm the 2012 groundwater data and characterize/evaluate the magnitude and extent of dissolved TMBs;
- Collect data to be used for fate and transport modeling (e.g. hydraulic conductivity, fraction organic carbon, etc.); and/or
- Other.

Milestone A activities shall be conducted as soon as possible following execution of the Fixed-Price Agreement.

Each bidder shall describe in detail its scope of work for additional site characterization activities along with corresponding technical justification to support the need for each additional activity. When considering what additional site characterization activities may or may not be necessary, bidders are strongly encouraged to review the historical documents provided in Attachment 3, rather than relying solely on the summary information presented in this RFB. As mentioned above, supplemental site characterization activities and monitoring well repairs shall be initiated upon execution of the Fixed-Price Agreement.

Potential considerations regarding the need for Milestone A activities include – determination of enough data for a risk-based closure; confirmation that the proposed remedial approach is cost-effective; and confirmation that the proposed remedial approach will provide a timely closure of the site under PADEP Act 2.

Any and all Milestone A activities that are proposed with your firm's bid shall be accompanied by the following:

- The purpose and need for each Milestone A activity and an appropriate breakdown;
- A detailed scope description of each activity including the use and incorporation of any pre-existing site data;
- The timing and schedule of each activity relative to the overall project schedule; and
- A description of the anticipated results of each activity and how such results may impact your proposed conceptual remedial action plan.

The additional site characterization work and monitoring well repairs completed under Milestone A shall be documented in the combined Supplemental Site Characterization Report / Revised Remedial Action Plan (SSCR / RRAP) in Milestone G of this RFB.

Milestone B – Monitoring Well Repairs. Under this task, bidders shall provide a firm fixed-price to replace and secure the well head manholes / surface covers at existing on- and off-

property wells MW-7, MW-12, MW-15, and MW-19. Each bid shall identify the monitoring wells to be repaired along with justification, and a description of the repair activities for each location.⁷

This milestone shall also include the proper closure / in-place abandonment of MW-13⁸ consistent with PADEP guidelines, including well head removal and re-vegetation, concrete / asphalt repairs, as necessary. This work shall also include photo-documenting the well abandonment and completion / submittal of the well abandonment form.

Milestone C – Quarterly Groundwater Monitoring, Sampling, & Reporting. Under this task, bidders shall provide a firm fixed-price to complete four quarters of groundwater monitoring and sampling events in order to evaluate groundwater contaminant levels, plume stability and groundwater contaminant trends since the source soil excavation remedial action was completed. However, since there are no historical TMB data for groundwater, it may be determined later that more than four quarters of monitoring, sampling, & reporting may be needed to evaluate TMB plume stability⁹. Therefore, bidders are required to provide a unit cost per quarter inclusive of groundwater monitoring, sample collection and analysis, and reporting on the Bid Cost Spreadsheet (Attachment 2). For bid standardization purposes, the spreadsheet assumes a total of four groundwater monitoring and sampling events.

The groundwater monitoring and sampling events will include existing on- and off-property wells MW-1, MW-2, MW-5A, MW-6, MW-7, MW-8, MW-11, MW-12, MW-14 through MW-22, and MW-25A.¹⁰ During each event, the depth to groundwater and any potential light non-aqueous phase liquids (LNAPL) shall be gauged in all available monitoring wells prior to purging any of the wells for sampling. Groundwater level measurements obtained from the monitoring wells shall be converted to groundwater elevations for assessing groundwater flow direction and hydraulic gradient. The conduct and results of each event shall be documented in quarterly “Remedial Action Progress Reports” (RAPRs). Any well exhibiting more than a sheen of LNAPL shall not be purged and sampled.¹¹

Groundwater samples shall be analyzed for the post-March 2008 PADEP short-list of unleaded gasoline parameters (BTEX, MTBE, cumene, naphthalene, 1,2,4-TMB, and 1,3,5-TMB) by a PADEP-accredited laboratory using appropriate analytical methods and detection levels. Appropriate QA/QC samples shall also be collected during each event and analyzed for the

⁷ Bidders will be given the opportunity to assess the condition of the existing monitoring wells during the pre-bid site meeting.

⁸ Existing well MW-13 appears to have irreparable damage; however, this well will not be repaired as it will no longer be sampled.

⁹ TMBs were first analyzed and detected in soil samples during the 2008 soil excavation confirmation sampling. To date, no site groundwater samples have been analyzed for TMBs.

¹⁰ Existing well MW-13 has been irreparably damaged / questionable integrity or lost from prior site work activities. The presence of surrounding and downgradient wells has rendered this well non-essential and, therefore, it has been removed from the network of wells in the monitoring program.

¹¹ LNAPL has not been observed in any of the monitoring wells since 2005.

same parameters.¹² In addition, each event shall include field measurements for these water quality parameters: pH, temperature, specific conductance, dissolved oxygen (measured in-situ), and oxidation/reduction potential.

The RAPRs describing the sampling methods and results will be provided to the PADEP on a quarterly basis and within 30 days of the receipt of analytical results for each quarter. At a minimum, each RAPR shall contain the following:

- A summary of site operations made during the reporting period;
- Narrative description of the sampling procedures and results;
- Tabulated data collected from the monitored wells documenting the depth to groundwater and thickness of any free product encountered;
- Groundwater elevation contour maps depicting groundwater flow direction;
- Tabulated historical quantitative groundwater analytical results including results from the current quarter;
- Current quarter laboratory analytical report(s);
- One site-wide iso-concentration contour map for each compound detected in any one well above the SHS during the quarter;¹³
- For each well exceeding SHS, a graphical depiction of historical key contaminant concentrations and groundwater elevations to provide an assessment of correlations between fluctuating water levels / precipitation events and contaminant concentrations;
- For each well exceeding SHS, a graphical depiction of recent key contaminant concentration trends;
- Discussion of the data to offer an updated assessment whether these data are consistent with a stable, shrinking, or expanding plume;
- Treatment and disposal documentation for waste generated during the reporting period; and
- Demonstration of compliance with the required Federal, State, and local permits and approvals.

PAUSTIF will only reimburse for necessary quarterly groundwater sampling / reporting events actually completed under this task (e.g., this task shall be considered complete following PADEP approval of the SSCR / RRAP [Milestone G]). For example, if only a total of four

¹² Each bidder's approach to implementing Milestone C shall clearly identify the number of sampling events; number of wells & samples per event; well purging and sampling method(s); QA/QC measures; analytes; purge water management methods; and other key assumptions affecting the bid price.

¹³ All figures included in each RAPR (e.g., site plan, groundwater elevation maps, dissolved plume maps, etc.) shall be available in electronic format to the Solicitor upon request.

quarterly groundwater sampling / reporting events are completed, then the selected bidder would only be reimbursed for the four quarterly groundwater sampling / reporting events actually completed. Each quarterly RAPR shall be signed and sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the RAPR).

Milestone D – Plume Stability Assessment. Under this task, bidders shall provide a fixed-price cost and describe their approach in detail for evaluating the groundwater data and demonstrating contaminant plume stability. This work is anticipated to include evaluating contaminant trends in individual wells and performing both a quantitative (e.g. contaminant fate-and-transport model) and qualitative (e.g. contaminant isoconcentration drawings) to address all dissolved-phase constituents whose concentrations exceed the non-residential used aquifer SHS.

Bid responses will be expected to describe how the preponderance of data would be used to assess the nature of overall plume stability with the recognition there may be localized perturbation of constituent concentrations (e.g., due to groundwater fluctuations in the plume core) that may or may not be a reflection of the stability of the plume as a whole. Bidders are expected to provide a description of how plume stability will be evaluated qualitatively (e.g., using a sequence of plume limit contours chronologically over the post-remedial period to evaluate if the plume generally remains in the same area over time). Additionally, if quantitative statistics are proposed to be used by bidders (e.g., Mann-Kendall) to supplement a qualitative evaluation, bidders shall describe these techniques and how difference between qualitative analysis and quantitative analysis will be resolved.

For fate and transport modeling, PADEP's New Quick Domenico model may be appropriate for this site because groundwater appears to be present in the unconsolidated natural soils and weathered bedrock; however, prior to implementing this task, the selected consultant shall contact the PADEP project officer for his/her input on the type of modeling to be performed.¹⁴ The fixed-price cost shall include documenting the plume stability analysis and fate and transport modeling effort in the SSCR / RRAP (Milestone G), including providing all model input/output; providing a thorough explanation of model construction, justifying all input parameters, and discussing the modeling results and conclusions in detail with respect to assessing current and predicted future plume stability.

Milestone E – Risk Assessment Addendum. Under this task, bidders shall evaluate the exposure point concentrations (EPCs) used in the RA and determine if available new (more recent) soil and groundwater data would significantly effect the EPC RA-input values based on how the EPCs were calculated. In addition, the RA will need to be updated to include the TMBs for groundwater; and it appears the RA did not adequately explore the risk of soil and

¹⁴ Should the PADEP subsequently disagree, this new requirement will constitute a "new condition" under the Fixed-Price Agreement.

groundwater impacts to the adjacent residential property (that is also owned by Solicitor) to which the Solicitor is also willing to apply an environmental covenant precluding groundwater use.

Such new data may be from more recent quarterly groundwater sampling, from supplemental investigation that may be completed under Milestone A, or from other sources. If it is concluded that such new data would significantly affect the EPCs and the RA conclusions, the Milestone E Risk Assessment Addendum shall provide the revised EPCs and revised calculated individual and cumulative risks for the RA-identified pathways and receptors. If on the other hand it is concluded that the new data will not significantly affect the calculated EPCs or assessed risk, then the Risk Assessment Addendum would be expected to present the new data with these conclusions along with rationale.

The bidder must identify and document in their bid any modifications to the 2012 RBR RA that they wish to address in the RA Addendum, including identifying any and all deficiencies associated with the RA and explain how the deficiencies will be addressed. The number, scope and rationale for any modifications to RBR RA will be one of the criteria used to evaluate the bid. **Any bid that does not clearly and unambiguously state whether the bidder accepts the RBR RA "as is" (with the possible exception of evaluating EPCs against more recent data), or that does not provide a cross-referenced list of changes the bidder intends to address in its RA Addendum along with rationale, will be considered non-responsive.** This statement should be made in a section in each bid entitled "Risk Assessment Addendum".

After completing the draft RA Addendum, the selected consultant will present the draft to the Solicitor and PAUSTIF for review and comment as a separate deliverable. The project schedule should allow two (2) weeks for Solicitor and PAUSTIF to review the draft Risk Assessment before being finalized and incorporated into the SSCR / RRAP (Milestone G).

Milestone F – Conceptual Site Model. Under this task, bidders shall provide a fixed-price cost for updating the conceptual site model (CSM) for the Site and its vicinity based on evaluating the results of the site characterization tasks outlined above. Information contained in the historical documents may also be referenced.

Information considered in developing the CSM shall consist of, but should not necessarily be limited to, stratigraphic and lithologic characteristics / relationships; groundwater elevations and flow direction; hydrogeologic controls on groundwater movement and contaminant transport; intrinsic aquifer parameters; the distribution of hydrocarbon contaminants in soil and groundwater; evaluation of potential sensitive receptors, and consideration of the contaminant fate-and-transport modeling results. The CSM shall be presented and discussed in the SSCR / RRAP (Milestone G).

Milestone G – Preparation, Submission, and PADEP Approval of Combined SSCR / RRAP. Upon completing Milestones A through F described above, the selected consultant will prepare the combined SCRA / RRAP for review and comment by the Solicitor and PAUSTIF.

This SSCR / RRAP shall contain all necessary information required under 25 PA Code §245.309, 245.310, and 245.311 and be of sufficient quality and content to reasonably expect PADEP approval. Each bidder's project schedule shall provide two (2) weeks for Solicitor and PAUSTIF review of the draft document. The final SSCR / RRAP shall address comments received from the Solicitor and PAUSTIF on the draft report before it is submitted to the PADEP for its review. The fixed price cost for this milestone shall also include addressing any PADEP comments on the final report.

The combined SSCR / RRAP shall document, describe, and evaluate all findings provided from Milestones A through F above and incorporate information and data from the previous site documentation as necessary to comply with the regulatory requirements and to obtain PADEP approval.

For the RRAP portion of the document, bidders may assume that the RA Addendum will find that no further remediation is required and the RRAP; therefore, will state that no further remediation will be required.¹⁵ The comprehensive document shall also: (a) contain all necessary and appropriate figures, tabulated data, and appendices; (b) reference the selected remedial goal for soil and groundwater; (c) discuss the recommended site closure strategy and its viability for achieving the remedial goal within a reasonable time frame; (d) identify the proposed point-of-compliance (POC) monitoring wells; (e) present a detailed schedule for implementing the recommended remedial approach (if applicable); and (f) discuss the application of the EC's and any EC waivers (if required).

The SSCR / RRAP shall be sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the SSCR / RRAP).

Milestone H – Preparation, Submission, and PADEP Approval of RACR. Under this task, the bidder will prepare a fixed-price cost to prepare a draft and final RACR following the completion of Milestone G. The RACR shall be prepared in accordance with Section 245.313. At a minimum, the RACR shall provide the details for Milestones A through F. The RACR shall also discuss the selected closure criteria for the site, provide proof of soil and groundwater attainment, and request permanent closure for the site for the current release under an Act 2 Relief of Liability (ROL). The project schedule should allow two (2) weeks for Solicitor and PAUSTIF review of the draft RACR before a final version is submitted to the PADEP. The selected consultant shall then prepare and submit the final RACR to the PADEP in accordance with Section 245.313, and be sealed by a Professional Geologist and / or Professional Engineer registered in the Commonwealth of Pennsylvania (bidders shall refer to state licensing laws to determine which seals are required based on the work performed for and documented in the RACR). The fixed-price cost shall also include addressing any PADEP

¹⁵ If the Risk Assessment (Milestone E) determines that additional remediation is required, this outcome would most likely constitute a "New Condition" as defined under the Fixed-Price Agreement.

comments on the RACR.

Milestone I – Finalizing / Filing of EC’s. Under this task, the bidder shall describe and provide a fixed-price bid for finalizing and filing the EC’s associated with the PAUSTIF eligible release. The fixed-price shall include all reasonable and necessary activities and required fees to finalize and file the EC(s) for the subject property, the adjoining property to the northwest, and any other neighboring properties, if applicable, with the local court house and other required entities. The successful bidder will be responsible for coordinating this work with the impacted property owner(s) and their legal counsel(s). Legal fees are *not* to be included in bid costs. PAUSTIF reimbursement of Client and/or third party legal fees will be considered outside of the executed Remediation Agreement.

The fixed price cost for this task shall also include the work necessary in petitioning PADEP for any relevant EC waivers.

Milestone J – Site Closure / Restoration Activities. Under this task, the bidder shall describe and provide a fixed-price bid for properly closing the site, including: proper disposal of any remaining wastes; in-place abandonment of monitoring wells, the private water supply well on adjoining property to the northwest, and soil vapor sampling points consistent with PADEP guidelines; well head removals; and re-vegetation, concrete / asphalt repairs, as necessary, for areas that have been disturbed by site characterization or remedial action activities. This task shall also include photo-documenting the site restoration work and completion / submittal of the well abandonment forms. Copies of these photographs and forms shall be provided for the Solicitor’s files.

Each bid shall specify the number of days for initiating Milestone J following approval of the RACR by PADEP, and shall be conducted in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives. Well, vapor monitoring point abandonment, remedial system removal, and restoration activities will be coordinated with the Solicitor.

Additional Information

In order to facilitate PAUSTIF’s review and reimbursement of invoices submitted under this claim, the Solicitor requires that project costs be invoiced by the milestone tasks identified in the bid. The standard practice of tracking total cumulative costs by milestone will also be required to facilitate invoice review. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. The selected consultant will perform only those tasks/milestones that are necessary to reach the Objective identified in this RFB. Selected consultant will not perform, invoice, or be reimbursed for any unnecessary work completed under a Milestone.

Any “new conditions”, as defined in Attachment 1, arising during the execution of the SOW for any of the milestones may result in termination of or amendments to the Remediation Agreement. All necessary modifications to the executed Remediation Agreement will require the prior written approval of the Solicitor and the PAUSTIF. PADEP approval may also be required.

List of Attachments

1. Remediation Agreement
2. Bid Cost Spreadsheet
3. Site Information/Historic Documents
 - 3a Figures
 - 3b Supplemental Report, dated May 2006 (Parts 1 through 10)
 - 3c Remedial Action Progress Report, 4th Quarter 2007, dated November 2008
 - 3d Remedial Action Progress Report, 1st Quarter 2008, dated April 2010
 - 3e Remedial Action Progress Report, 2nd Quarter 2008, dated April 2010
 - 3f Remedial Action Progress Report, 3rd Quarter 2008, dated April 2010
 - 3g Soil Excavation Completion Report, dated November 2007 (Parts 1 & 2)
 - 3h Health Risk Assessment Report, dated May 2012
 - 3i 4th Quarter 2012 Data