

COMPETITIVE FIXED-PRICE BID SOLICITATION

SITE CHARACTERIZATION ACTIVITIES, REMEDIAL ALTERNATIVES ANALYSIS, SITE CHARACTERIZATION REPORT / REMEDIAL ACTION PLAN PREPARATION

ZOZOS CITGO
912 MT. ROYAL BLVD, PITTSBURGH, PA 15223

PADEP FACILITY ID #02-81560
PAUSTIF CLAIM #2009-0070(S)

July 7, 2011

Thank you for your interest in this Request for Bid (RFB) opportunity. This RFB Solicitation is issued on behalf of the Claimant and owner, Mr. Louis G. Zozos (hereafter referred to as the Client or Solicitor) by the Pennsylvania Underground Storage Tank Indemnification Fund (PAUSTIF or "Fund"). This RFB references a scope of work (SOW) for completing site characterization activities, completing a remedial alternatives analysis, and preparing a combined Site Characterization Report (SCR) / Remedial Action Plan (RAP) addressing impacted soil and groundwater. The facility is known as Zozos Citgo and is located in Shaler Township, Allegheny County, PA.¹

The Solicitor has elected to pursue an Act 2 closure based on demonstrating attainment of the used aquifer Statewide Health Standard (SHS) Medium-Specific Concentrations (MSCs) for soil, soil vapor, and groundwater in a residential setting.

The SOW (Tasks 1 through 7) will be embodied in a Fixed-Price Agreement (see Attachment 2) executed by the Solicitor and the selected consultant. Although not a party to the Agreement, the Fund will reimburse 90 percent of the reasonable, necessary, and appropriate costs associated with the Milestone Payment Schedule specified in Section 4 below and as incorporated into the signed Agreement, while the Solicitor will reimburse 10 percent. The SOW tasks consist of the following:

- Task 1. Source Soil Delineation
- Task 2. Groundwater Monitoring and Sampling
- Task 3. Aquifer Characterization Testing
- Task 4. Soil Vapor Study
- Task 5. Constant-Rate and Vacuum Enhanced Pumping Test
- Task 6. Soil Vapor Extraction Feasibility Testing
- Task 7. Prepare a Draft and Final SCR/RAP

Please note that a bidder's response to this RFB Solicitation Package means it has accepted all the contractual terms and SOW requirements (for example, but not limited to, any report submittal deadlines) unless explicitly stated to the contrary in the bid response. However, bidders are still expected to describe their approach to completing the SOW in full and in detail. Simply referencing the RFB specifications/requirements or repeating the RFB text verbatim is not considered a sufficient description of the bidder's proposed SOW "in full and in detail."

Should your company elect to respond to this RFB Solicitation, one copy of the signed bid package must be provided directly to the Fund's third-party administrator, ICF International (ICFI), at the address and to the attention of the person identified in Section 1 below. In addition to this one hard copy submittal, the complete bid response must be submitted to ICFI electronically in a single

¹ This facility was formerly known as Zozos Amoco.

PDF file (Adobe PDF format) on a compact disk (CD) to be included with the hard copy bid response. **The outside of the bid response package must be clearly marked and labeled with "Bid – Claim #2009-0070(S)."**

Please note that **the bid response (hard copy and digital version) is to be sent only to ICFI**. ICFI will be responsible for opening the bids and providing copies to the Technical Contact and the Solicitor. No bid responses will be opened for review until the due date and time elapses. Submitted bid responses are subject to Pennsylvania's Right-to-Know Law.

The signed bid package (hard copy and electronic copy) sent to ICFI must arrive no later than close of business (5 p.m.) on August 16, 2011. Please note that if your bid response is not received by ICFI by this due date and time, it will not be considered, i.e., only those bid responses received by the specified due date and time from those bidders who also attended the mandatory pre-bid site visit (see Section 6) will be considered.

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 web site (see www.ins.state.pa.us). While the Technical Contact will assist ICFI, PAUSTIF, and the Solicitor in evaluating the bid responses, it is up to the Solicitor to select the bidder from those bid responses deemed acceptable to PAUSTIF as reasonable, necessary, and appropriate. The Technical Contact will assist the Solicitor in communicating its choice of the successful bidder, which is anticipated to occur within six (6) weeks after receiving the bid responses.

1. ICFI, SOLICITOR, AND TECHNICAL CONTACT INFORMATION

ICF International	Solicitor	Technical Contact
Mr. Jerry Hawk ICF International 4000 Vine Street Middletown, PA 17057	Mr. Lou Zozos 206 Enders Lane Wexford, PA 15090	Mr. James Ackerman, P.G. Excalibur Group, LLC 276 Park Entrance Dr Pittsburgh, PA 15228 jimackerman@excaliburgrp LLC.com

Please note that the Technical Contact is the single point of contact regarding this RFB Solicitation. All questions regarding this RFB Solicitation and the site conditions must be directed **in writing** to the Technical Contact only. **Bidder questions must be received no later than seven (7) calendar days prior to the due date for the bid response.** Bidders must neither contact nor discuss this RFB Solicitation with the Solicitor, PAUSTIF, or ICFI unless approved by the Technical Contact (this RFB Solicitation may be discussed with subcontractors and vendors to the extent required for preparing the bid response). Bidders must also not contact or discuss this RFB Solicitation with the PADEP. If a bidder has specific questions for the PADEP, please provide these questions to the Technical Contact who will forward them to the PADEP; however, the PADEP may choose not to reply to any questions it receives.

Please note that unless a bidder successfully demonstrates its question is proprietary in nature, all questions and responses exchanged during and after the pre-bid site visit will be provided to all bidders on a non-attributable basis. A bidder must specify any questions it regards as proprietary at the time it submits these questions to the Technical Contact. If said question(s) is (are) determined to be non-proprietary by the Solicitor and the Technical Contact, the bidder will be given the option of withdrawing its question(s) before it is answered and a response distributed.

2. GENERAL SITE BACKGROUND AND DESCRIPTION

Sanborn Fire Insurance land use maps indicate the subject property has been occupied by a “filling station” since at least 1951.² The 1951 map shows a facility layout different from today’s station, with the station building and a gas tank positioned within the southwest quadrant of the property. Abandoned underground storage tanks (USTs) were recently discovered in this southwest area of the property (further discussed below). Records also indicate at least one other facility layout predating the current plan, with a building centrally located on the property.

Records indicate the first registered USTs were Tank 001 (8,000-gallon gasoline), Tank 002, (6,000-gallon gasoline), and Tank 003 (6,000-gallon gasoline) installed in June 1979.³ These tanks were located at the north side of the existing building as shown in **Figure 1**, which is an approximate drawing of tank location from the UST closure report for these tanks. Later UST registration documents appear to revise the installation dates for these USTs, indicating Tank 001 was installed in June 1968, and Tanks 002 and 003 in September 1969.⁴

There were three earlier USTs that pre-dated Tanks 001, 002, and 003 as indicated in a drawing that accompanied a 1988 well installation and sampling report by ICF/SRW Associates. The drawing is based on a Mobil Oil Corporation drawing titled “1976 Improvement Proposal” (**Figure 2**), and shows three USTs, including one 10,000 gallon, one 8,000 gallon, and one “abandoned tank”.⁵ In these positions, these tanks would have been immediately north of the earlier building that was centrally located on the property at that time.⁶ No other documentation is available regarding these earlier tanks, but it appears they would have been removed sometime prior to the installation of Tanks 001, 002, and 003 because the closure excavation associated with Tanks 001, 002, and 003 in 1993 extended westward to coincide with the location of these tanks, and no abandoned USTs were reported found.

The first record of environmental sampling at this facility is a limited soil and groundwater investigation performed by ICF/SRW for Petroleum Equipment Services, Inc., and reported on 2/1/88.⁷ Four wells were installed on the property (**Figure 2**) and one soil sample was collected from each well boring. Two of the four wells, Wells 1 and 4, were dry at total depths of 25 and 24 feet, respectively. Groundwater samples were collected only from two wells, Wells 2 and 3 (located near present day MW-5 and MW-2, respectively), which had groundwater at depths of 22 and 5.4 feet, respectively. The sample results indicated 0.4717 mg/L benzene in Well 2, and 0.374 mg/L benzene in Well 3, which exceeded the current PADEP statewide health standard (SHS) medium-specific concentration (MSC) for used residential aquifers (0.005 mg/L). Benzene also exceeded the SHS-MSC for soil in the sample collected from the auger cuttings from Well 1 (0.839 mg/kg versus the MSC of 0.5 mg/kg).

Earth Sciences Consultants, Inc. (ESC) resampled ICF/SRW Wells 2 and 3 on 8/19/88, and in a report dated 9/8/88 benzene was again shown to exceed the groundwater MSC. On this occasion, however, benzene in Well 2 (near present day MW-5) was at a significantly higher concentration of 2.2 mg/L. Benzene in Well 3 (near present day MW-2) was somewhat lower than earlier, but at 0.190 mg/L was still orders of magnitude above the groundwater MSC. The drawing associated with this report is included as **Figure 3**. The report states “...it was verbally reported to us that other underground tanks had been

² Phase I Environmental Site Assessment (ESA), dated 4/27/2009.

³ Registration of Storage Tanks form 8/1/1990. See files named “19900801_UST_Registration” and “19930000_Storage_Tank_Data_System_screen” among the background electronic files posted on the PAUSTIF web site.

⁴ Amended UST registration dated 6/16/1993.

⁵ This drawing is from the ICF/SRW Letter Report, Subject: Groundwater Monitoring Wells, 2/1/88.

⁶ Refer to Sanborn Maps for 1965 and 1979 in the Phase I ESA for the location of this building.

⁷ ICF/SRW Letter Report, Subject: Groundwater Monitoring Wells, 2/1/88

present in the area of Wells 2 and 3 and were removed...". This area, as indicated on Figure 3, is at the northwest quadrant of the property, however there is no available documentation in the historical record to verify whether USTs ever existed in this area.

Dispensers were reportedly replaced in 1989 and reconfigured from the previous 2-dispenser layout to the current 4-dispenser layout. There are no records available detailing the dispenser change nor information regarding subsurface conditions at the time of the work.

The first documented UST closure occurred in April 1993 when Tanks 001, 002, and 003 were removed at the northeast quadrant of the property.⁸ A total of 925 tons of contaminated soil was excavated to depths of up to 16 feet and disposed offsite. Limited confirmatory soil samples were collected including one sample from each sidewall and two from the excavation base (Figure 1), and all samples were non-detect or below current MSCs. Note that the limits of this excavation are not shown in the closure report drawing, only soil sample locations.

Three new single-walled, 12,000 gallon, fiberglass USTs (Tanks 004, 005, and 006) were installed on 4/8/93 in part of the cavity created by the closure of the previous system, but at positions further east, closer to the northeast corner of the property relative to the position of the 1968/69 USTs. Dispensers were not replaced at the time of the 1993 UST installation. A fiberglass heating oil UST is located adjacent to the three gasoline USTs, and a waste oil UST of unknown size and construction is located behind the building and is not currently in use. Tanks 004, 005, and 006 are part of the present facility UST system. Sometime between 1988 and 1993, Wells 1 through 4 were removed or destroyed.

A due diligence Phase II Environmental Assessment (EA) performed in April 2009 by Flynn Environmental, Inc. discovered relatively high dissolved concentrations in groundwater at a depth of about 5 feet using direct push technology. One groundwater sample contained concentrations of 44.7 mg/L benzene, 447 mg/L toluene, 273 mg/L ethylbenzene, 2,049 mg/L xylenes, 1,563 mg/L 1,2,4-trimethylbenzene (1,2,4-TMB), 447 mg/L 1,3,5-trimethylbenzene (1,3,5-TMB), 47 mg/L cumene, 1,220 mg/L naphthalene, while MTBE was undetected. The findings resulted in the present USTIF claim.

Site characterization work was initiated by United Environmental Group, Inc. (UEG). A total of 15 new monitoring wells (MW1 – MW15) have been installed, while pre-existing wells include the Northwest and Southeast tank field wells. Also available for potential use is "Sunoco MW-6" located in Littlewood Street installed during the investigation of a nearby facility to the north (more on this well below). Groundwater sampling has been performed at MW-1, 2, 3, 5, and the Northwest and Southeast tank field wells on six occasions; at MW-6, 7, and 8D on five occasions; and at MW-9, 10, and 11 on two occasions. A single groundwater sample has been collected from each of the most recently installed wells, MW-12, 13, 14, and 15.⁹ Results thus far indicate benzene, naphthalene, MTBE, 1,2,4-TMB, and 1,3,5-TMB exceed SHS-MSCs in groundwater both onsite and offsite to the south.

Soil gas sampling was performed along the perimeter of the site building on one occasion, on 6/18/2010. The results indicated no exceedances of soil gas criteria (based on 100 times the indoor air criteria)¹⁰. Soil gas sampling locations are shown with "VP- " designations on **Figure 4**.

A soil investigation was performed in November 2009 in areas north and south of the contaminated Phase II ESA groundwater sample location at the west side of the property. The boring locations are shown on the Soil Excavation Map as SB-1 through B-8.¹¹ Sampling results indicated soil contamination

⁸ Refer to file named "19930607_UST_Closure_Rpt".

⁹ Refer to files named "20110209_GW_analytical_summary_thru_10-15-11" and "20110209_1Q_2011_laboratory_analytical_results".

¹⁰ Refer to file named "20100618_Soil_Gas_laboratory_analytical_results".

¹¹ Refer to file named "20100800_Soil_Excavation_Map"

at the southern half of the investigation area, i.e., the southwest corner of the property. Seven samples in this area exceeded SHS-MSCs for benzene (maximum 0.708 mg/kg), naphthalene (maximum 29.2 mg/kg), 1,2,4-TMB (maximum 123 mg/kg), and 1,3,5-TMB (maximum 49.2 mg/kg). A groundwater sample was also collected from one of the borings (SB-6) indicating benzene (821 ug/L), ethylbenzene (2,540 ug/L), naphthalene (1,310 ug/L), 1,2,4-TMB (807 ug/L), and 1,3,5-TMB (1,350 ug/L) all exceeding their respective SHS-MCLs.

An interim remedial action for soil removal was planned based on the above investigation results and the results of the Phase II ESA, and excavation was initiated in August 2010 beginning at the southwest corner of the property. The final aerial extent of soil excavation is indicated on the Soil Excavation Map (**Figure 5**). Potentially contaminated soil was screened and segregated based on a photoionization detector (PID) threshold of 100 parts per million (ppm), and soil above 100 ppm was deemed excessively contaminated and segregated for testing and disposal. PID readings were reported to be 1000 to 2000 ppm in the earlier stages of excavation. During excavation the consultant noted that the soil from 0-5 feet deep was not excessively contaminated based on field indications and PID readings. (Note that this 5-ft depth correlates to the depth of an intermittent shallow groundwater zone; see discussion below.)

Soil excavation was done in stages, starting with a 75-ft by 25-ft excavation ("Excavation 1") along the west side of the property. The southern 1/3rd of this excavation went to bedrock at a depth of about 21 feet, while the northern 2/3rd went to depths of about 13 feet. The second stage was a 10-foot by 45-foot excavation ("Excavation 2") along the southern property boundary. In the southern 1/3rd of Excavation 1, it was noted that PID readings on in-situ soils at south and west limits, exceeded 100 ppm at depths of between approximately 18 to 21 feet, but no further excavation could be performed laterally due to physical and property line limitations. In addition, elevated PID readings (300 to 700 ppm) were found on the east wall of the northern 2/3rd section of Excavation 1. No PID readings were reported exceeding 100 ppm along the north wall of Excavation 1, nor along the north, east, and south walls of Excavation 2. Confirmatory soil samples collected from base of the Excavations 1 and 2 were all below SHS, however no confirmatory soil samples were collected along excavation sidewalls.

Forty feet of 4-inch-diameter perforated PVC piping was installed along the south and west sidewalls of southern 1/3rd of Excavation 1, along with solid PVC riser piping connected to access manifolds at the ground surface for potential future use.¹² A total of 1,771.03 tons of petroleum contaminated soils was removed for offsite disposal and 1,735.96 tons of clean fill (#2A limestone) was imported. The soil removal IRA is documented in UEG's report titled *Interim Remedial Action Report, Soil Excavation*.¹³

Eight (8) undocumented, abandoned USTs were discovered and removed during the course of the August 2010 soil excavation work. The abandoned USTs are identified as follows (refer to the attached Soil Excavation Map for tank locations):

- T-1 1,000 gallon steel
- T-2 3,000 gallon steel
- T-3 1,000 gallon steel
- T-4 1,000 gallon steel
- T-5 300 gallon steel (waste oil tank)
- T-6 1,000 gallon steel
- T-7 3,000 gallon steel
- T-8 550 gallon steel (waste oil tank)

¹² Refer to file named "20110211_Map_showingPVC_piping_access_points".

¹³ Refer to file named "20101014_Interim_Remediation_Report (text,tables,fig_only)".

Installation dates for the eight abandoned USTs are unknown, however it appears likely they pre-dated 1968 considering that the documented chain of UST installation and closure begins with installation of a new UST system at the north side of the property in 1968. All of the abandoned USTs removed were in poor condition and contained numerous holes.

Note that corrective actions at a nearby property may have relevance to investigations at the subject facility. A retail fuel facility known as Sunoco 0364-0729 located approximately 130 feet north of claim site at 1020 Mount Royal Boulevard underwent corrective action between 1994 and 2007, and a release of liability was granted for the facility on 11/9/2007 (closure via combination SSS/SHS standards including SSS for benzene and MTBE in groundwater). The monitoring well network for the Sunoco facility included an off-site monitoring well, "Sunoco MW-6", located in East Littlewood Street approximately 15 feet north of Zozos Citgo. The Remedial Action Completion Report (RACR) for the Sunoco facility, dated April 2007, is included in the background materials¹⁴.

The permanent water table at the Zozos Citgo facility is in the depth range of 20 to 25 ft below ground surface (bgs), generally within sandstone bedrock. There are also indications of a shallower, intermittent saturated zone in the mostly silt and clay overburden at a depth of around 5 to 13 feet. The previous consultant's preliminary investigation results indicate a southeast groundwater gradient, which is consistent with the studies of the nearby Sunoco facility.

A site characterization report or remedial action plan has not been completed. In the near future the Solicitor intends to initiate facility renovation work that may include replacement of dispensers, product conveyance lines, and USTs. Although this work is being done independent of the SOW that is the subject of this RFB, the successful bidder will need to plan / coordinate its activities with the Solicitor to avoid interference in either project.

Bidders should consult the accompanying electronic files for more background information on this site.¹⁵ If there is any conflict between the information provided in this RFB and the source documents, the bidder should defer to the source documents.

3. SCOPE OF WORK OBJECTIVES

To be deemed responsive, each bid must respond in detail to the tasks outlined below and must describe and apply the bidder's conceptual site model interpretation as it pertains to conduct of these SOW tasks. By responding to the SOW as stated herein, it will enable achieving an "apples-to-apples" comparison of the bids. However, if a bidder's assessment of the available site background information/site conditions and interpretation of applicable guidance argues strongly for a different approach (even if it adds costs to the bid), the bidder can present its rationale and incremental costs *provided* the bidder also addresses the SOW "as is." **Failure to bid the SOW "as is" may result in a bid not being considered.**

Any modification to the selected consultant's SOW for Tasks 1 through 7 will require the prior written approval of both the Solicitor **and PAUSTIF** through its third-party administrator; PADEP pre-approval may also be required. Bidders should also note that this SOW was provided to the PADEP-SWRO case manager for review and comment.

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 necessarily limited to, meeting the requirements of the Storage

¹⁴ Refer to file named "20071109_Sunoco_RACR_Facility_ID_02-30624".

¹⁵ The documents provided are the best scanned-in versions available to the Technical Contact.

Tank and Spill Prevention Act (Act 32 of 1989, as amended), Pa. Code, Title 25, Chapter 245, and demonstrating attainment of the standards established under the Land Recycling and Environmental Remediation Standards Act (Act 2 of 1995) and Pa. Code, Chapter 250.

Per the Solicitor's request, the SOW addressed by **Tasks 1 through 7 must be completed within five (5) months** following contract award. **Each bidder's proposed project schedule must meet this requirement clearly and unambiguously.** The project schedule must also specify no less than two (2) weeks for the Solicitor and PAUSTIF to review and comment on the draft SCR/RAP before it is submitted for PADEP review and comment.

In addition to the SOW tasks specified below, the selected consultant shall also:

- Conduct necessary, reasonable, and appropriate project planning and management activities until the SOW specified in the executed contract is completed. Such activities may include client communications/updates, meetings, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling, and other activities (e.g., utility location, etc.). 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 may be required by regulations or that may be necessary and appropriate to complete the SOW, and shall also include activities related to establishing any necessary access agreements. Project management costs shall be included in the fixed-price quoted for Tasks 1 through 7, as appropriate.
- 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 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 upon request. Waste disposal costs shall be included in the fixed-price quoted for Tasks 1 through 7, as appropriate.
- Be responsible for providing the Solicitor, and site operator, with adequate advance notice prior to each visit to the property. The purpose of this notification is to coordinate with the Solicitor and site operator to ensure that appropriate areas of the property are accessible. Return visits to the site prompted by a failure to make the necessary logistical arrangements in advance will not constitute a change in the selected consultant's SOW or total project cost for Tasks 1 through 7.
- Be responsible for keeping all monitoring wells in good condition, with each well properly sealed and locked in-between each monitoring/sampling event. The selected consultant is responsible for repairing any seals or locks that become defective during the period of this contract at its expense. Should a well become damaged or destroyed through no fault of the contractor, the Solicitor may request that the selected consultant repair or replace the well as an amendment to this SOW subject to the rate schedule provided in the selected consultant's bid response. However, any request for Fund reimbursement of the reasonable costs to repair or replace a well will be considered on a case-by-case basis.

Task 1 – Source Soil Delineation. Under this task, bidders shall provide a firm fixed-price quote for completing soil borings to delineate remaining source soils in the dispenser area, along the west property boundary between the former excavation and Mt. Royal Road and the south property boundary. For the

purposes of this bid, bidders shall assume that fourteen (14) soil borings will be located within the areas indicated on **Figure 6** (see the accompanying electronic files posted on the PAUSTIF web site). Bidders shall propose specific boring locations and sampling methods in their bid. If a bidder believes that additional borings should be placed elsewhere, the bidder shall identify the location(s) and provide rationale. The selected consultant shall reevaluate the number and/or final location for the borings based on information gained from the utility location (clearing) work. If gross soil impacts are evident during execution of this task based on field screening data and field observations, additional soil borings shall be completed subject to a comprehensive fixed unit cost per boring to be included with each bid. The unit cost per boring shall include borehole advancement, logging, screening, sampling, and laboratory analysis of one soil sample.

Each soil boring shall achieve a depth that ensures vertical delineation of unsaturated and periodically saturated soils. For costing purposes, bidders shall assume that each boring will be completed to an average depth of 21 feet below grade. Bidders shall provide a unit cost per foot for additional borehole advancement, logging, screening, and sampling in the event that additional drilling footage is required.

In addition to contacting PA One Call, bidders shall assume clearing and sampling the initial five (5) feet of each boring location using vacuum excavation methods or hand augering. Below the depth of five feet, each soil boring shall be advanced using direct-push or hollow stem auger / split-spoon sampling methods. Continuous soil samples shall be collected beginning immediately beneath the asphalt/concrete surface cover for description of lithologic characteristics, groundwater occurrence, and staining/odor indicative of petroleum impacts. Hand auger, direct-push, or split-spoon soil core samples shall be screened in the field using an appropriately calibrated photoionization detector (PID) and standard headspace methods. One soil sample per boring shall be submitted for laboratory analysis (14 field samples total). This soil sample shall be collected from the depth interval exhibiting the highest organic vapor concentration based on PID headspace screening, or, if no elevated organic vapor levels are measured along the length of a boring and no staining and/or odor are evident, samples shall be obtained from immediately above the water table surface. If the water table (i.e., saturated soil) is not encountered during the installation of the boring, the analysis shall be performed on one soil sample from the portion of the unsaturated zone with highest hydrocarbon impact potential based on the judgment of the selected consultant. To accommodate the possible need to collect additional soil samples based on field observations and in order to accommodate the possible need for delineation of the vertical extent of soil contamination, bidders shall also provide a unit cost per additional soil sample analysis.

Soil samples shall be analyzed for the post-March 2008 PADEP short list of unleaded gasoline parameters inclusive of 1,2,4- and 1,3,5-trimethylbenzene (TMB). Appropriate quality assurance/quality control (QA/QC) samples shall also be obtained for laboratory analysis. Based on the analytical results, the dimensions and volume of remaining source materials, if any, shall be estimated.

Activities under this task shall also include: (i) contacting the PA One Call System, Inc.; (ii) clearing each soil boring location using a hand auger or vacuum excavation; (iii) professional surveying of the soil boring locations and elevations for inclusion on the site plan and cross section development; (iv) sealing each boring with bentonite and asphalt surface patch after completion; and (v) management of drilling and personal protective equipment wastes in accordance with applicable regulations, guidance, and directives. Methods and results for this task shall be detailed in the SCR/RAP.

Task 2 – Groundwater Monitoring and Sampling. Under this task, bidders shall provide a firm fixed-price to complete two (2) rounds of groundwater monitoring and sampling to include the 14 functioning monitoring wells (MW-4 is not functioning) and the two tank field wells (16 wells total). The two sampling rounds shall be separated by a period of approximately 3 months. The conduct and results of this work shall be documented in the SCR/RAP. During each sampling event, the depth to groundwater and any potential separate phase liquid (SPH) shall be gauged before purging and sampling activities are initiated.

Gauging of Sunoco MW-6 in Littlewood Street shall be included, although groundwater sampling from this well is not include in this SOW. Each well shall be purged and sampled utilizing standard low-flow techniques in accordance with the PADEP Groundwater Monitoring Guidance Manual and standard industry practices. Any well exhibiting more than a sheen of SPH shall not be purged and sampled. Bidders shall manage equipment decontamination fluids and groundwater generated by the well purging and sampling activities in accordance with standard industry practices and applicable laws, regulations, guidance, and PADEP directives.

Groundwater samples shall be analyzed for the post-March 2008 PADEP short-list of unleaded gasoline parameters (including TMBs) by an accredited laboratory using appropriate analytical methods and detection levels. Appropriate QA/QC samples shall also be collected and analyzed for the same parameters. In addition, field measurements and laboratory analyses for natural attenuation parameters shall be performed during the initial and confirmation sampling events. Field parameters to be measured for each of the wells shall consist of pH, temperature, specific conductance, dissolved oxygen, and oxidation/reduction potential (measured in-situ). Laboratory analysis of the following natural attenuation & treatability parameters shall be conducted on three (3) wells: manganese (total and dissolved), iron (total and dissolved), ferrous iron, ferric iron, , nitrate nitrogen, total phosphorus, sulfate, total organic carbon, alkalinity, and microbial plate counts (heterotrophic and gasoline degraders). Preliminary groundwater data indicate a southeast gradient, therefore bidders shall assume analyzing samples from MW-2 as representative of a location upgradient of the contaminant plume, from MW-6 as representative of a location within the core of the plume, and from MW-13 as representative of a location downgradient of the contaminant plume. Bidders shall also identify a per-well sampling / analytical cost should it be necessary to select more or fewer wells for natural attenuation & treatability parameters sampling.

Groundwater level measurements obtained from all of the monitoring wells shall be converted to groundwater elevations for assessing groundwater flow direction and hydraulic gradient. Additional rounds of groundwater level measurements shall be collected during the course of the site characterization activities and used to assess natural fluctuations in groundwater elevation and potential variation in groundwater flow direction over time. A minimum of two (2) additional rounds of groundwater level measurements shall be performed following completion of the sampling event and prior to completing the draft SCR/RAP. The two rounds shall be separated by an interval of at least two weeks.

The bidder's approach to implementing this task shall clearly identify the number of sampling events, number of wells/samples per event, well purging and sampling method(s), QA/QC measures, purge water management / disposal methods, analytes, and other key assumptions affecting the bid price.

Task 3 – Aquifer Characterization Testing. In order to establish hydraulic parameters for the shallow water table aquifer, support potential future contaminant fate-and-transport modeling, and assist with developing a conceptual site model, bidders shall propose completing single-well aquifer characterization tests (rising and falling head slug tests) on seven of the 14 existing monitoring wells (MW-3, 5, 6, 7, 8D, 10, and 11). The slug tests will be performed according to accepted industry standards and the data will be reduced / evaluated using appropriate methods (e.g., Bouwer and Rice slug test solution for determining the hydraulic conductivity of unconfined aquifers with completely or partially penetrating wells [1976]).

Bidders shall provide a firm fixed-price cost to conduct the slug tests and reduce / evaluate the data along with a detailed description of the proposed slug test procedures and the planned techniques for reducing the data. Documentation of the slug testing methods, results, and conclusions shall be provided in the SCR/RAP.

Task 4 – Soil Vapor Study. Under this task, bidders shall provide a fixed-price cost for completing a soil vapor (SV) study. This work was initiated by the previous consultant with the installation of four soil vapor

sampling points and the performance of one round of soil gas sampling on 6/18/2010. Additional SV sampling points shall be completed due to the discovery of potentially contaminated soil along the southern property boundary in proximity to a residential building to the south.

This task shall be conducted in a manner consistent with the requirements, guidance, and decision matrices in the *Land Recycling Program Technical Guidance Manual – Section IV.A.4, Vapor Intrusion into Buildings from Soil and Groundwater*. For the purpose of comparing cost quotes, bidders shall assume installing and sampling two (2) additional soil vapor monitoring points along the north side of the 2-story brick building located south of the facility. In addition, bidders shall quote an all-inclusive unit price (installation and sampling) per soil vapor monitoring point should more or fewer monitoring points be needed or should existing sampling points not be found not functional and in need of replacement. The newly installed soil vapor monitoring points shall be sampled twice, with each sampling event separated by a period of at least four (4) weeks. During one of these SV sampling events, the four existing SV sampling points shall also be sampled. Therefore, bidder should assume a total of eight (8) soil vapor samples and associated analysis.

Each soil vapor sample shall be collected in pre-certified Summa canisters, which must be fitted with a properly calibrated regulator to allow an approximate 8-hour draw so that each sample represents an 8-hour time-weighted composite. Soil vapor samples shall be submitted to an accredited laboratory for analysis of post-March 2008 unleaded gasoline short-list constituents using appropriate analytical methods and detection levels. Soil vapor samples shall be analyzed by method TO-15. Appropriate QA/QC samples shall also be collected and analyzed for the same constituents. The methods and results for the soil vapor study shall be described in the SCR/RAP along with any recommendations regarding the necessity for an expanded vapor intrusion assessment inclusive of indoor air quality sampling, as appropriate.

Task 5 –Constant-Rate & Vacuum-Enhanced Pumping Test. The bidder shall provide a fixed-price cost to conduct a constant-rate and vacuum-enhanced pumping test and evaluate the test data. The pumping test data shall be used to estimate the sustainable yield under gravimetric head and vacuum enhanced conditions and provide the shallow bedrock aquifer effective hydraulic conductivity and other parameters as data input to the Remedial Alternatives Analysis (RAA) under Task 7. Raw data from the pumping test shall be reduced using appropriate techniques and the test methods and conclusions shall be described in the SCR/RAP.

In its proposal, each bidder shall specify the extraction well and observation wells to be used for the pumping test considering the network of existing wells and the available site background information. It is suggested that the extraction well be MW-3, however a bidder may select a different extraction well and provide rationale for the selection.

An aquifer step-drawdown (or stepped-rate) test shall first be conducted within the extraction well to estimate a sustainable flow rate for the pumping test. Note: Should the step test indicate the sustainable yield is too low to provide a reasonable pump test, other site well(s) shall be step tested to locate a better candidate for the constant-rate test. During the stepped-rate test, groundwater levels in the extraction well and surrounding observation wells (MW-8D, MW-5, MW-6, MW-7, MW-10 and MW-11) shall be monitored. After pumping for the stepped-rate test has been discontinued, the extraction well and observation wells must be monitored until they return to pre-pumping static conditions.

Following the stepped-rate test, a constant-rate 8-hour (minimum pump time) pumping test shall be conducted. Before beginning the test, groundwater levels shall be monitored over a minimum 24-hour period within the selected extraction well and all observation wells to identify natural background fluctuations. During the pumping test, groundwater levels in the extraction well and the surrounding observation wells (MW-8D, MW-5, MW-6, MW-7, MW-10 and MW-11) shall be continuously monitored.

After the well has been pumped for a minimum period of 8 hours, a vacuum of at least 60 inches of water shall be simultaneously applied to the pumping well head and maintained for at least 1 hour. During this time, the selected consultant shall evaluate the extent to which the applied vacuum increased sustainable yield and hydraulic responses in surrounding wells.

After the vacuum enhanced pumping evaluation is complete, the test operations shall be terminated and the wells allowed to recover. During the recovery phase, groundwater levels in the extraction well and all observation wells will be monitored until it is determined that recovery within the extraction well has attained at least 90 percent of the original static groundwater level.

Monitoring of the selected extraction well and observation wells shall be performed using electronic pressure transducers and data logging equipment. Extracted groundwater flow rate and cumulative volumetric totals shall be metered and recorded regularly within each hour of the pilot study operations. Additionally, the bidder shall assume that extracted groundwater will be containerized on-site initially and then transported offsite for proper disposal at a permitted facility. Unless its research suggests otherwise, bidders shall assume the existing groundwater analytical data can be used for waste disposal characterization purposes.

Task 6 – Soil Vapor Extraction Pilot Study. A one-day soil vapor extraction (SVE) pilot study shall be conducted to evaluate the technology's feasibility and to provide system design parameters should the pilot testing confirm SVE is a potentially effective means of addressing residual soil impacts outside of previously excavated areas. The pilot study shall be conducted in undisturbed overburden soils sufficiently outside the previously excavated areas to ensure that the test will not be affected by the excavation backfill material. The SVE pilot study shall be conducted in one of the areas where residual soil impacts are suspected (i.e., at the dispenser or area in the "15 ft alley" bordering the property to the south, as indicated on **Figure 6**).

The existing site monitoring wells are generally cased through the overburden, therefore, one designated 2-inch diameter extraction well and three 2-inch diameter vacuum influence monitoring wells shall be installed for the pilot testing. Distances between the designated extraction well and each of the influence monitoring wells shall be measured and reported with the pilot study results. Each of the four (4) wells shall have screens set to correspond to the "stained sand layer"¹⁶ present at depths of approximately 18 to 21 along the south property line (well screens are suggested to be installed from 11 feet to 21 feet below grade). The annular space above the screens shall be well sealed to prevent short-circuiting through the bore holes. The extraction well shall be installed within the selected test area in a location where maximum residual soil contamination can be anticipated in the soil but a minimum of 10 feet from the former excavation. The three influence monitoring wells shall be installed at distances of 10, 20 and 30 feet from the designated extraction well.

The SVE pilot study shall:

1. Use the PID readings in extracted soil vapors from each location to help evaluate the distribution of overburden impacts in the test area;
2. Determine the vacuum / vapor yield relationship at each of the four test well locations;
3. Measure the capacity to induce soil vapor flow / pneumatic responses at various distances from the extraction test well; and
4. Determine VOC mass recovery potential from the extraction test well.

¹⁶ Refer to file named "20101014_Interim_Remediation_Report1 (text,tables,fig_only)", Section 11.0.

The pilot testing blower shall have a minimum vacuum generation / operational capacity of 80 inches of water at 40 SCFM. Flow shall be measured in units of standard cubic feet per minute and baseline & influence vacuums shall be measured down to the nearest 0.01 inches of water.

Prior to beginning the pilot testing, the depth to groundwater (if present) and baseline vacuum / pressure shall be measured in all 4 pilot study wells. The pilot testing shall then proceed by removing soil vapor from the designated extraction well in two sequential steps. During Step 1, a moderate vacuum (e.g., 40 inches H₂O, as measured at the well head) will be applied to the extraction well and sustained for approximately two hours. During Step 2, the well head vacuum will be increased to approximately 80 inches of water or the maximum attainable and maintained for an additional two hours. Measurements that shall be conducted during each step of the pilot testing shall include: 1) extracted vapor flow rate that shall be converted to standard cubic feet per minute; 2) changes in extracted soil vapor contaminant concentrations in parts per million (using a PID); and 3) pneumatic influence at the three surrounding influence vacuum wells. At the conclusion of each of step, a sample of the extracted air shall be collected and sent to the laboratory for VOC analysis mass per volume units (e.g., ug/m³). The laboratory shall report concentrations of individual PADEP short-list constituents for unleaded gasoline and total hydrocarbons. The location of the laboratory sampling point on the pilot system set-up shall be consistent with where the extracted air flow PID measurements are taken.

Once Steps 1 and 2 have been completed and subsurface vacuum conditions have returned to background, the blower shall be connected in turn to each of the 3 influence monitoring points. While connected to each influence monitoring point, the blower shall be operated at maximum attainable vacuum for approximately ½-hour. During this time, the extracted soil vapors shall be measured for flow rate (yield), VOC concentration (using a PID), and influence vacuums. Additionally, influence vacuums shall be measured at each of the other influence monitoring wells.

As a final step in the vapor extraction pilot testing, the blower shall be temporarily connected to the riser pipe for the slotted piping placed along the southern and western perimeter of the former 21-ft-deep excavation and operated at maximum achievable vacuum for 1 hour. During this time, the extracted soil vapors shall be measured for flow rate (yield), and VOC concentration (using a PID) and influence vacuums. Additionally, influence vacuums shall be measured at each of the four (4) SVE pilot test wells installed (extraction and vacuum influence).

During the pilot testing, extracted soil vapors shall be treated using granular activated carbon (GAC) prior to discharge to the atmosphere or otherwise handled to comply with PADEP requirements, regulations, guidance and directives.

The pilot study data shall be evaluated to estimate (a) the effective radius of influence; (b) the initial VOC contaminant mass recovery rate potential; and (c) soil vapor extraction rate that can be expected relative to an optimal applied vacuum. All SVE pilot study data and analyses shall be presented and written up in narrative form and included in the SCR/RAP report.

Task 7 – Prepare a Draft and Final Combined SCR/RAP. Upon completing Tasks 1 through 6 described above, the selected consultant shall prepare a combined SCR/RAP in draft form for review and comment by the Solicitor and PAUSTIF. This combined SCR/RAP shall contain all necessary information required under 25 PA Code §§245.309, 245.310, and 245.311. Each bidder's project schedule shall provide two weeks for Solicitor and PAUSTIF review of the draft document. The final SCR/RAP shall address comments received from the Solicitor and PAUSTIF on the draft report before it is submitted to the PADEP for its review.

The SCR/RAP shall document, describe, and evaluate all findings provided from Tasks 1 through 6 above and incorporate information and data from the previous site documentation as the selected consultant

deems appropriate. The bid shall also include any additional background research necessary to support the site characterization, including:

- Determining regional and local geology, hydrogeology, and hydrology;
- Evaluating the potential for contributing offsite sources of contamination (e.g., leaking UST sites);
- Investigating whether a local groundwater use ordinance exists;
- Identifying potential sensitive receptors;
- Researching local groundwater use and identifying the nature / location of any public and private water supplies within a ½-mile radius of the site;
- Identifying buried utilities at the facility and on surrounding parcels that may serve as preferential contaminant migration pathways.

This task shall also include development of a complete conceptual site model (CSM) for the site and vicinity based on an evaluation of historical site characterization data and the results from the site characterization tasks outlined above. Information considered in developing the CSM shall consist of, but 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, and the distribution of hydrocarbon contaminants in soil and groundwater. The conceptual hydrogeologic / contaminant model shall be presented in the SCR/RAP.

The SCR/RAP document shall present a detailed, comprehensive and meaningful Remedial Alternatives Analysis (RAA) considering technical, cost, and schedule considerations that presents a description of at least three leading viable and cost effective options for remediation (if necessary) and site closure to the selected cleanup standard. The RAA should consider how the slotted piping placed along the perimeter of the former excavation may or may not be used for SVE, bionutrient infiltration / recirculation or other purposes.

The SCR/RAP document shall also: (a) contain all necessary 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; and (d) identify the proposed point-of-compliance monitoring wells. The SCR/RAP shall be signed and sealed by a Professional Geologist and a Professional Engineer registered in the Commonwealth of Pennsylvania.

Contingency Cost Adder #1 - Soil Stockpile Analytical Testing (lump sum fixed price)

The Solicitor intends to pursue (independent of the SOW that is the subject of this RFB) facility renovation work that may include replacement of dispensers, product conveyance lines, and USTs. Where installation of the new equipment requires removal of soils the Solicitor believes to be excessively contaminated, the Solicitor may elect to stockpile the excessively contaminated soils on the property for testing. Should testing of these soils determine that the stockpiled soil does not meet PADEP clean fill requirements for on-site re-use, the successful bidder will be responsible for disposal-facility application / acceptance, loading, transportation, and disposal of the stockpiled excessively contaminated soil at the selected facility.

To assess whether or not Solicitor-stockpiled soil from site improvement work is excessively contaminated (i.e., soil pile does not meet the clean fill requirements for on-site reuse), the consultant shall provide a lump sum cost for the requisite PADEP sampling and laboratory analyses (see "DEP Technical Document, *Closure Requirements for Underground Storage Tank Systems, Effective 4/1/1998*") along with written conclusions delivered to ICFI / USTIF and Solicitor. Bidders shall assume that the soil stockpile sampling will need to be completed in a reasonably timely manner shortly after Solicitor has completed facility improvement excavation work. Laboratory analyses shall be standard turnaround time.

Contingency Cost Adder #2 – Soil Loading, Transportation, and Disposal (unit fixed price - \$ / ton)

The total mass of any contaminated soil that may need to be removed from the site cannot be quantified at this time; therefore, two different unit costs for this work shall be provided by the bidders for loading, transportation, and disposal of excessively contaminated soils, depending on amount of stockpiled soil.¹⁷ A unit price (\$/ton) shall be provided if the stockpiled soil mass amounts to 30 tons or less and a separate unit price (\$/ton) shall be provided for stockpiled soil mass amounts to more than 30 tons.

4. TYPE OF CONTRACT / PRICING

The Solicitor wishes to execute a mutually agreeable, firm, fixed-price, not-to-exceed contract for the SOW addressed by Tasks 1 through 7. A sample Fixed-Price Agreement is included as Attachment 2.¹⁸ Although the Fund will not be a party to this Agreement, it will facilitate the process of getting the Fixed-Price Agreement in place.

As noted earlier, **a bidder's response to this RFB Solicitation means it has accepted all the contractual terms unless explicitly stated to the contrary in its bid response.** Therefore, if a bidder seeks changes to the Fixed-Price Agreement, these changes *are to be specified in the submitted bid response*. Please note that any requested changes must be agreed upon by both the Solicitor and the PAUSTIF and subsequently included in the executed Fixed-Price Agreement.

Each bid is to identify unit cost rates for labor, other direct costs, and equipment, as well as proposed mark-ups on other direct costs and subcontracted services for Tasks 1 through 7. The by-task, by-subtask, and unit price quotes are to be entered into the Cost Tabulation Spreadsheet / Standardized Bid Format included as Attachment 3 to this RFB (this table is also included among the accompanying electronic files). Please note that the total fixed-price bid must include all costs, including those cost items that the bidder may regard as "variable", i.e., these variable cost items will not be handled outside of the Total Fixed Price quoted for the SOW. Finally, please also note that referencing extremely narrow or unreasonable assumptions, special conditions, and exemptions may make the bid response too difficult to evaluate and may result in the bid response being deemed "unresponsive."

Payment Milestones. Table 2 below illustrates the approximate timing expected for completion of respective milestone tasks and milestone payouts. Actual milestone payments will occur only after successful and documented completion of the work defined for each milestone. Payment milestones under the Fixed-Price Agreement shall be broken out as follows:

- Milestone A – Source Soil Delineation (Task 1).
- Milestone B – Groundwater Monitoring and Sampling (Task 2).
- Milestone C – Aquifer Characterization Testing (Task 3).
- Milestone D – Soil Vapor Study (Task 4).
- Milestone E – Constant-Rate and Vacuum Enhanced Pumping Test (Task 5).
- Milestone F – Soil Vapor Extraction Pilot Study (Task 6).

¹⁷ Full documentation of unit cost work will need to be provided for reimbursement of these costs (e.g., waste disposal facility weigh tickets).

¹⁸ The selected consultant will be provided an electronic copy of the sample contract in Word format to allow contract-specific information to be added.

- Milestone G – Prepare a Draft and Final SCR/RAP (Task 7).

TABLE 2 – SAMPLE MILESTONE COMPLETION / PAYMENT SCHEDULE

Estimated Milestone Timing, Month After Contract Award	SOW Activities Anticipated / Completed for that Month	Milestone ¹
1	Source Soil Delineation; Groundwater Monitoring and Sampling (1)	A, B1
2	Aquifer Characterization Testing; Soil Vapor Study	C, D
3	Constant-Rate and Vacuum Enhanced Pumping Test; Soil Vapor Extraction Pilot Study	E, F
4	Groundwater Monitoring and Sampling (2)	B2
5	Prepare a Draft and Final SCR/RAP	G

1. Each bidder should modify this sample Milestone Completion / Payment Schedule to reflect its proposed task schedule, as long as the proposed schedule meets the deliverable deadlines specified in Section 3 of this RFB.

Please note that the selected consultant's work may be subject to ongoing review by the PAUSTIF or its representatives to assess whether the proposed and completed work and the associated costs are reasonable, necessary, and appropriate. In order to facilitate review and reimbursement of submitted invoices by PAUSTIF, project costs shall be invoiced following the task structure specified in the bid response submitted by the selected consultant. Tracking incremental and cumulative costs by task will also be required to facilitate invoice review.

Unless otherwise noted by the bidder, each bid response received is required to be good for a period of up to 120 days after its receipt. The quoted unit costs will be good for the duration of the period of performance cited in the Fixed-Price Agreement.

5. ADDITIONAL BID PACKAGE REQUIREMENTS

Each submitted bid response must include the following:

- A reasonable demonstration that the bidder: (i) understands the objectives of the project, (ii) offers a reasonable approach for achieving those objectives efficiently, and (iii) has reviewed the existing site information provided in or attached to this RFB Solicitation Package.
- Provide an answer to the following questions regarding the bidder's qualifications and experience:
 - How many Chapter 245/250 sites has your company closed (i.e., obtained a Release of Liability under Act 2) in Pennsylvania?
 - How many Chapter 245/250 sites has your company or the proposed PA-licensed Professional Geologist (P.G.) and Professional Engineer (P.E.) closed (i.e., obtained a Release of Liability from the PADEP) under either the SHS and/or the Site Specific Standard? [NOTE: The Solicitor requires

the work described herein to be completed under the responsible care and directly supervised by a P.G. and P.E. consistent with applicable regulations and licensing standards.]

- Whether there were or were not circumstances consistent with the cancellation provision of a signed contractual agreement, and has your firm ever terminated work under a fixed-price or pay-for-performance contract before attaining all of the project objectives and milestones? If yes, please list and explain the circumstances of each such occurrence.
- A complete firm fixed-price cost bid for Tasks 1 through 7 by completing the bid cost tabulation spreadsheet provided in Attachment 3 (included among the accompanying electronic files) following the SOW task structure specified herein.
- A description and discussion of all level-of-effort and costing assumptions.
- Indicate whether the bidder accepts the proposed contract / terms and conditions (see Attachment 2) or has provided a list of requested changes to the Fixed-Price Agreement.
- Provide a statement of applicable / pertinent qualifications, including the qualifications of any proposed subcontractors (relevant project descriptions are encouraged).
- Identify the proposed project team and provide resumes for the key project staff, including the proposed Professional Geologist and Professional Engineer of Record who will be responsible for endorsing work products prepared for PADEP review and approval.
- Provide a task-by-task description of the proposed technical approach. **If this task-by-task description fails to address a specific requirement of this RFB, it will be assumed that the bidder has accepted all the requirements specified herein by task.**
- Identify and sufficiently describe subcontractor involvement by task (if any).
- Provide a detailed schedule complete with specific by-month dates for completing the proposed SOW, inclusive of reasonable assumptions regarding the timing and duration of client, PAUSTIF, and PADEP reviews needed to complete the SOW. Details on such items as proposed meetings and work product submittals shall also be reflected in the schedule of activities.
- Describe your approach to working with the PADEP from project inception to site closure. Describe how the PADEP would be involved proactively in the resolution of technical issues and how the PADEP case team will be kept informed as to project status.
- Describe how the Solicitor and ICFI / PAUSTIF will be kept informed as to project progress and developments and how the Solicitor will be informed of, and participate in, evaluating potential alternatives / tradeoffs with regard to the SOW herein.

6. MANDATORY PRE-BID SITE VISIT

On **July 26, 2011**, the Technical Contact will conduct a **mandatory pre-bid site tour** for a limited number of participants per firm at the subject property starting at 10AM. Please inform the Technical Contact at least three (3) business days in advance of this date as to the number of participants attending from your

firm. Again, **any firm that does not attend this mandatory pre-bid site tour will not be eligible to submit a bid response.**

Questions will be entertained as part of the pre-bid site tour and every attempt will be made to answer questions at that time. However, all questions and the responses provided during the site visit will also be distributed in writing to the attendees after the tour, as will the answers to any non-proprietary questions submitted in writing after the pre-bid site tour has been concluded. Consequently, bidders are strongly encouraged to ask clarifying questions sufficient to minimize the number of assumptions, special conditions, and exemptions referenced in the submitted bid response.¹⁹ **Questions will be accepted up to close of business (5 p.m.) August 4, 2011.** Again, please note that referencing extremely narrow or unreasonable assumptions, special conditions, and exemptions in a bid response may make the bid response too difficult to evaluate and may result in the bid response being deemed “unresponsive.”

¹⁹ The list of assumptions, special conditions, or exemptions will be discussed with the Solicitor. As part of that discussion, the PAUSTIF may advise the Solicitor that certain assumptions, special conditions, or exemptions that are likely to generate change orders may be the financial responsibility of the Solicitor if the change order involves non-reimbursable activities.

ATTACHMENT 1

Relevant Project Documents

<u>Filename:</u>	<u>Document:</u>
Figure 1 - USTs closed April 1993	Figure from UST closure report (UST Closure Request) , Petroleum Industry Consultants, 6/7/1993
Figure 2 - 1988 map ICFSRW report	Figure from ICF/SRW Letter Report, Subject: Groundwater Monitoring Wells, 2/1/1988
Figure 3 - ESC map 1988	Figure from Letter Report, Site Assessment, Boron Service Station, Earth Sciences Consultants, Inc, 9/8/1988
Figure 4 - SV sampling points and SVE piping access points	Figure showing existing soil vapor sampling points and existing access points to perforated piping
Figure 5 - Soil_Excavation_Map	Figure from UEG's report titled <i>Interim Remedial Action Report, Soil Excavation, October 2010</i>
Figure 6 – Investigation Locations	Figure showing work locations for Tasks 1, 5, and 6
19880201_ICF-SRW_Report	ICF/SRW Letter Report, Subject: Groundwater Monitoring Wells, 2/1/1988
19880908_ESC_Report	Letter Report, Site Assessment, Boron Service Station, Earth Sciences Consultants, Inc, 9/8/1988
19900801_UST_registration	Registration of Storage Tanks form, received 8/1/1990
19930000_Storage_Tank_Data_System_screen	Department printout showing UST installation and registration information
19930607_UST_Closure_Rpt	UST Closure Report, 6/7/1993
19930616_Amended_UST_registration	Amended UST registration, 6/16/1993
20071109_Sunoco_RACR_Facility_ID_02-30624	Remedial Action Completion Report for the Sunoco facility to the north, April 2007
20090414_Phase_I_ESA	Phase I Environmental Assessment, Flynn Environmental, Inc., 4/14/2009
20090424_NORR	Notification of Reportable Release, 4/24/2009
20090427_Phase_II_ESA	Phase II Environmental Assessment, Flynn Environmental, Inc., 4/27/2009
20091112_Soil_Boring_Logs_SB-1_through_8	Boring logs for SB-1 through SB-8
20091112_Soil_Sampling_laboratory_analytical_results	Laboratory analytical reports for soil borings SB-1 through SB-8

20091211_Soil_analytical_results_MW-1,2,3,4	Laboratory analytical reports for soil samples collected 12/1 – 12/4/2009
20091215_Laboratory analytical reports GW samples collected 12-15-2009	Laboratory analytical reports for groundwater samples collected 12/15/2009
20100120_Laboratory analytical reports GW samples collected 1-20-2010	Laboratory analytical reports for groundwater samples collected 1/20/2010
20100309_Soil_analytical_results_MW-6,7,8	Laboratory analytical reports for soil samples collected 3/9 – 3/10/2010
20100323_Laboratory analytical reports GW samples collected 3-23-2010	Laboratory analytical reports for groundwater samples collected 3/23/2010
20100412_Current_Site_Plan	Site survey by Tait Engineering
20100423_Laboratory analytical reports GW samples collected 4-23-2010	Laboratory analytical reports for groundwater samples collected 4/23/2010
20100618_Soil_Gas_laboratory_analytical_results	Laboratory analytical reports for four soil gas samples collected 6/18/2010
20100810_Laboratory analytical reports GW samples collected 8-10-2010	Laboratory analytical reports for groundwater samples collected 8/10/2010
20100819_Soil_analytical_results_MW-9	Laboratory analytical reports for soil samples collected 8/19/2010
20100820_Soil_analytical_results_MW-10,11	Laboratory analytical reports for soil samples collected 8/20/2010
20100903_Laboratory analytical reports GW samples collected 9-3-2010	Laboratory analytical reports for groundwater samples collected 9/3/2010
20101014_Interim_Remediation_Report1 (text,tables,fig_only)	Interim Remedial Action Report, Soil Excavation, United Environmental Group; includes text, tables, and the only figure
20101014_Interim_Remediation_Report2 (analytical reports)	Interim Remedial Action Report, Soil Excavation, United Environmental Group; includes laboratory analytical reports only
20101014_Interim_Remediation_Report3 (maps and photos1)	Interim Remedial Action Report, Soil Excavation, United Environmental Group; Maps and photographs
20101014_Interim_Remediation_Report4 (photos2)	Interim Remedial Action Report, Soil Excavation, United Environmental Group; photographs
20110113_Soil_analytical_results_MW-12,13,14,15	Laboratory analytical reports for soil samples collected 1/11 – 1/13/2011
20110209_1Q_2011_laboratory_analytical_results	Laboratory analytical reports for groundwater samples collected 2/9-10/2011
20110209_Groundwater_Elevation_Data	Summary table including well casing elevation and depth to groundwater measurements through 2/9/2011
20110209_Groundwater_Gradient_Map	Groundwater gradient map for 2/9/2011

20110209_GW_analytical_summary_thru_10-15-11	Summary table including groundwater analytical results for samples collected through 10/15/2011
20110209_Well_boring_logs	Well boring logs and well installation records
20110211_Current_Site_Plan_with_MW-12,13,14,15	Site map showing MW-12,13,14,15 locations
20110211_Current_Site_Map	Site map
20110211_Map_showingPVC_piping_access_points	Map showing location of 4 existing soil vapor sampling points and the access point to installed perforated PVC piping

*Request for Bid
PAUSTIF #2009-0070(S)
Zozos Citgo
Pittsburgh, PA
July 7, 2011*

ATTACHMENT 2

Fixed-Price Agreement

(This agreement has been provided in an electronic form that does not permit modifying the agreement. An electronic version of the agreement that will allow for tracking modifications will be provided to the selected consultant at the appropriate time.)

*Request for Bid
PAUSTIF #2009-0070(S)
Zozos Citgo
Pittsburgh, PA
July 7, 2011*

ATTACHMENT 3

Standardized Bid Format