COMPETITIVE BID SOLICITATION FOR COMPLETION OF SITE CHARACTERIZATION PLUS ACTIVITIES

FORMER BOYER'S SERVICE STATION SITE

ROUTES 435 AND 502, DALEVILE, COVINGTON TOWNSHIP, PENNSYLVANIA

PADEP FACILITY ID # 35-50045 -- PAUSTIF CLAIM # 1995-0305(M)

March 30, 2011

This Request for Bid (RFB) Solicitation is to prepare and submit a **Cost Not-To-Exceed Time and Materials Competitive Bid** to complete a **Site Characterization Plus** for the subject site.

A petroleum release from the on-site Underground Storage Tank (UST) System was confirmed at the subject site and some site characterization investigations have been conducted. As a result of those actions, soil and both the shallow overburden and deeper bedrock aquifers were found to be impacted by petroleum Constituents of Concern (COCs). Additionally, contamination has been confirmed in 2 off-site supply wells.

A summary groundwater investigation report was prepared and submitted to the Pennsylvania Department of Environmental Protection (PaDEP) on February 13, 2008. In their review comments letter, dated March 3, 2008, the Department noted that the extent of contamination had not been fully delineated and determined that further site characterization is necessary.

Through this Request For Bid (RFB), additional site investigations and remedial technology evaluations appropriate to this site are being sought in order to fully characterize the extent of the release and to fully evaluate appropriate technologies capable of remediating the release capable of obtaining a release of liability. The successful bidder will complete the necessary investigations and submit a Site Characterization Plus Report (SCPR) which shall include sufficiently detailed remedial technology evaluations to permit PaDEP's review and approval those technologies which are determined to be viable.

The Solicitor has an open claim (Claim # 1995-0305(M) with the Pennsylvania Underground Storage Tank Indemnification Fund (PaUSTIF or 'Fund"), and the work outlined in this RFB will be completed under this aforementioned claim. Reimbursement of Solicitor-approved reasonable, necessary and appropriate costs, up to claim limits, for the work described in this RFB will be provided by PaUSTIF and the Solicitor.

The work to be completed under this RFB will generally include the following components (additional details are provided later within this solicitation).

1. Component I activities including: records reviews, interviews, documentation of release and site history, site reconnaissance, etc;
2. Component II Activities including: installing, surveying, gauging and sampling wells, aquifer testing, vapor intrusion testing, etc; and,
3. Component III preparing a Site Characterization Plus Report (SCPR) and remedial alternative evaluations for Solicitor to review prior to PaDEP submittal.[1]

Not-to-exceed costs for individual tasks proposed by the bidder shall be based on the scope of work provided in the RFB. Expenses for individual tasks in excess of the quoted price for the individual tasks shall be the bidder's responsibility. The scope and budget for any identified out of scope activities must be pre-approved to be eligible for payment. Any costs associated with deviations from the scope that did not receive prior approval by PaUSTIF or its representatives will not be reimbursed.

Should your company elect to respond to this RFB Solicitation, one (1) hard copy and one (1) electronic copy on a CD of the signed bid package must be provided to the identified ICFI Representative. **The outside of the envelope must be clearly labeled BID – CLAIM #1995-0305(M). The signed response (both electronic and hard copy) to this RFB must be provided to the ICFI Representative no later than close of business (5:00 PM EDST) on June 3, 2011.**

On behalf of ICFI and PaUSTIF, the Technical Contact will assist the Solicitor in evaluating the bid, but the Solicitor will ultimately choose to negotiate the mutually agreeable contract. The Bid evaluation will consider, among other factors, total bid cost, unit costs, schedule, qualifications and contract terms and conditions (no priority or relative weighting is implied by the order of these factors). The Solicitor anticipates informing the bidder with an approval to proceed within nine (9) weeks of the bid response deadline.

A. SOLICITOR AND TECHNICAL CONTACT INFORMATION

Solicitor	ICFI Representative	Technical Contact
Mr. Ronald Boyer LBH Company 7101 Marston Court University Park, FL 34201	Ms. Jennifer Goodyear ICF International 4000 Vine Street Middletown, PA 17057-3565	Mr. Eric J. Slavin, MS, CPGS, RPG President/Senior Consultant Earth Resource Associates, Inc. 544 Hemlock Lane Lebanon, PA 17042-6094 Email: Eric.J.Slavin@gmail.com

[1] For clarity, this RFB does not include the preparation or implementation of a Remedial Action Plan (RAP). However, as a Site Characterization Plus, the bidder is required to thoroughly evaluate viable remedial alternatives deemed capable achieving the selected remedial standard.

NOTE: Submitted bid responses are subject to Pennsylvania's Right-to Know Law.

All questions regarding this RFB Solicitation and the subject site conditions must be directed via email to the Technical Contact with the understanding that all questions and answers will be provided to all bidders. The email subject line must be "Former LBH Boyer Service Station 1995-0305(M) – RFB QUESTION." **Bidders must neither contact nor discuss this RFB Solicitation with the Solicitor, PaUSTIF, PaDEP, or ICFI unless approved by the Technical Contact.** This RFB Solicitation may be discussed with subcontractors/vendors to the extent required for preparing the bid response. **All questions must be received by close of business on May 20, 2011.** All questions will be answered by the Technical Contact by no later than May 27, 2011. **There will be no site visits allowed except as provided in Section F.**

B. SITE LOCATION / BACKGROUND

Site Name/Address

Former LBH Boyer Service Station
Corner of Routes 435 and 502
Dalevile, PA

Municipality /County/ Latitude and Longitude

Daleville, Covington Township
Lackawanna County

41° 18' 27.82" north latitude
-75° 30' 49.92" west longitude

Site Use Description:

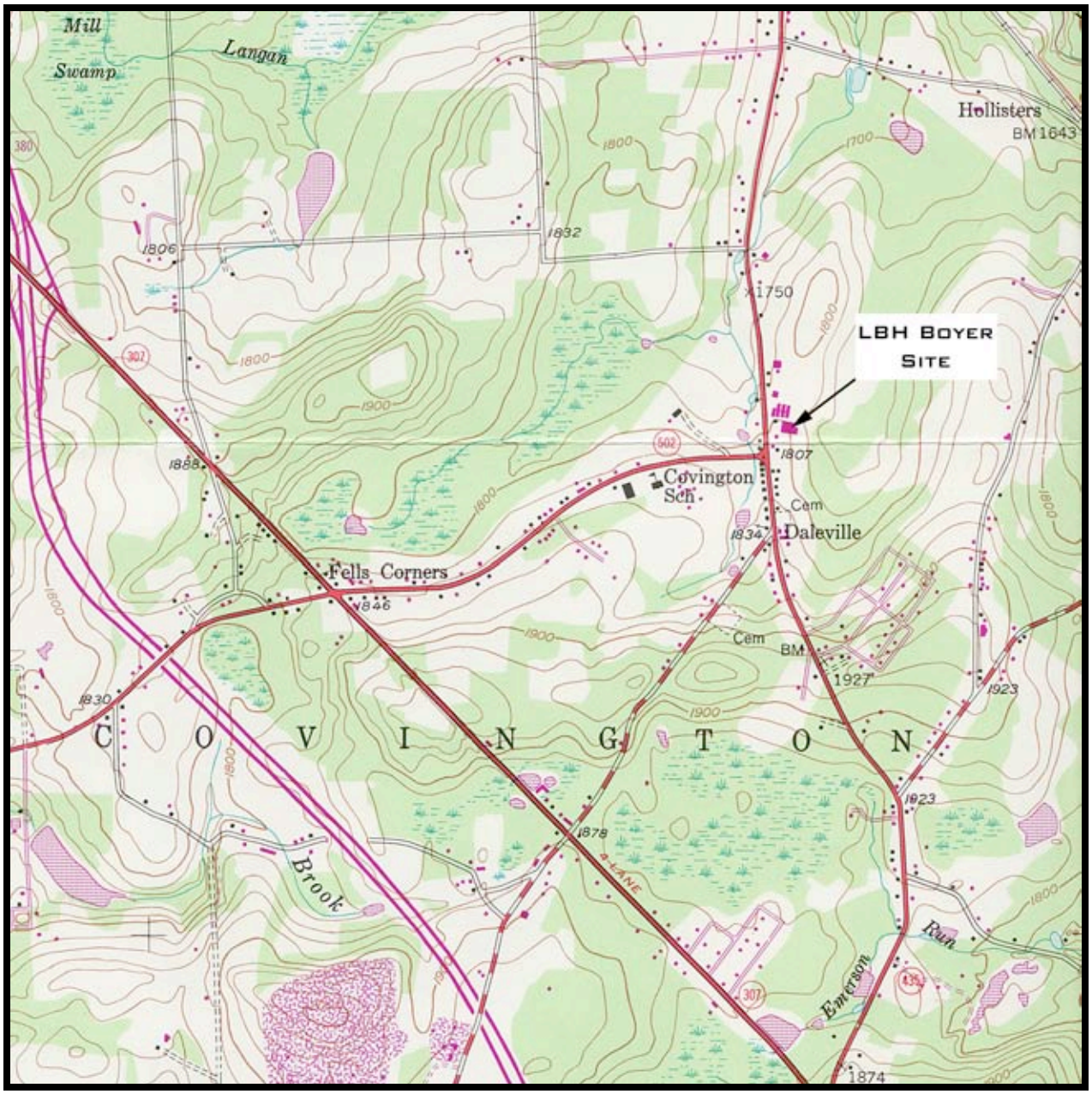
The Former LBH Boyer Service Station site is an active 2-bay automobile repair facility operated as A&B Automotive, Inc., and is located at the intersection of State Routes 235 and 502 in Daleville, Pennsylvania (Figure 1).

To the north the property is bordered by commercial property on which Kay's Restaurant is situated, and beyond which is undeveloped land.

To the east, the property is bordered by undeveloped land.

To the south the property is bordered by an access road, across which is a commercial property on which a Rite Aid pharmacy has been constructed.

Figure 1
Site Location Map



Location Map Taken From USGS 7.5 Minute Topographic Series Moscow, PA 7.5 Minute Quadrangle (photorevised 1976)

Scale 1 : 24,000

North

Figure 2

Recent Aerial Photograph of Site Area

Aerial photography taken from MapQuest

To the west, the subject property is bordered by State Route 435, across which is commercial property on which a McDonalds Restaurant has been constructed and beyond which is a strip mall shopping center.

USTs removed in 1995 were replaced with a 15,000 gallon divided UST. That tank, along with the associated piping and dispensers are present at the site, but are not currently in use.

The subject property, as well as all surrounding properties are serviced by individual wells.

Nature of Confirmed Release:

On October 9, 1995, three single wall steel USTs having capacities of 2,000, 3,000 and 6,000 gallons, were closed by excavation and removal at the subject property. The USTs had been used to store unleaded gasoline.

Groundwater was encountered at approximately 15 feet below grade and the contractor reported that stained soils and gasoline odors were observed and a sheen was reported on the water within the tank excavation. Additionally, holes were observed in 2 of the 3 USTs. The contractor collected 1 sample of the pit water, but did not collect any soil samples from either the tank excavation nor from the piping runs. A Notice of Reportable Release, dated October 10, 1995, was filed with the PaDEP.

Following the removal of the USTs, a new divided 15,000 gallon UST was installed.

A copy of the UST Closure Report completed by the contractor is included with the attachments to this RFB.

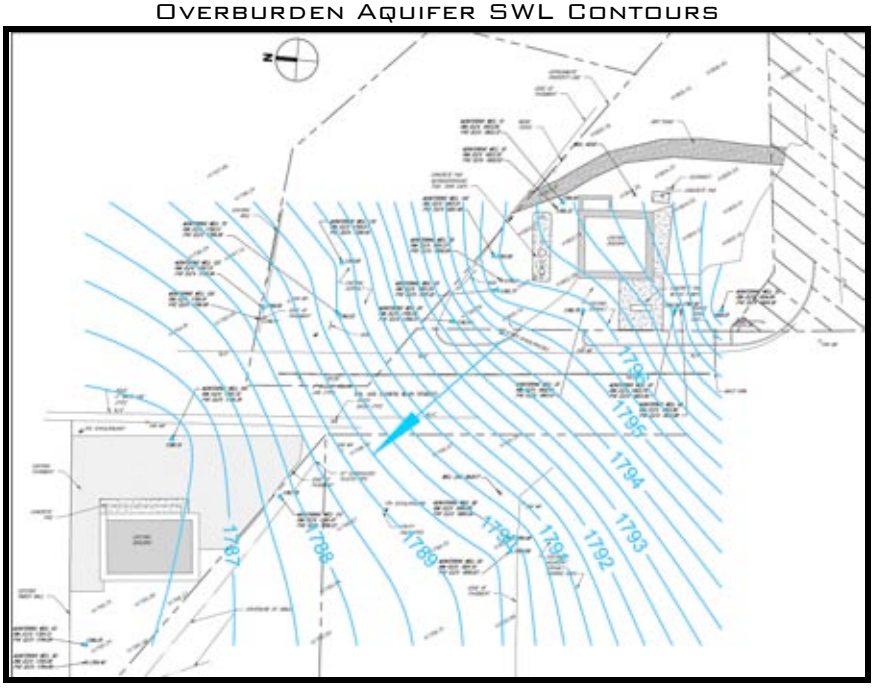
Site Characterization Actions Conducted To Date:

Site characterization activities were initiated on May 13, 1996 and have included the installation and sampling of soil borings and groundwater monitoring wells that are completed in both the overburden and bedrock aquifers. Results of those investigations (those of which have been provided to the Fund and are included within the attachments to this RFB) have documented that contamination associated with the former UST system has impacted soils, the shallow overburden aquifer and the underlying bedrock aquifer. Comparison static water level contouring and benzene and MTBE isocon mapping from the September 2009 sampling event are provided in the following figures.

Two off-site supply wells, one which supplies the adjacent Kay's Restaurant and the other which supplies the Pocono Stoves property, also have been impacted. A treatment system has been installed on the Kay's Restaurant well and quotations have been sought to install a replacement well for the Pocono Stoves property and to seal the existing well. Neither logs nor construction data are available for either of the off-site wells.

Figure 3
Comparison of Overburden and Bedrock SWL Contour Mapping
September 2009 Sampling Event

Overburden Aquifer SWL Contours



Bedrock Aquifer SWL Contours

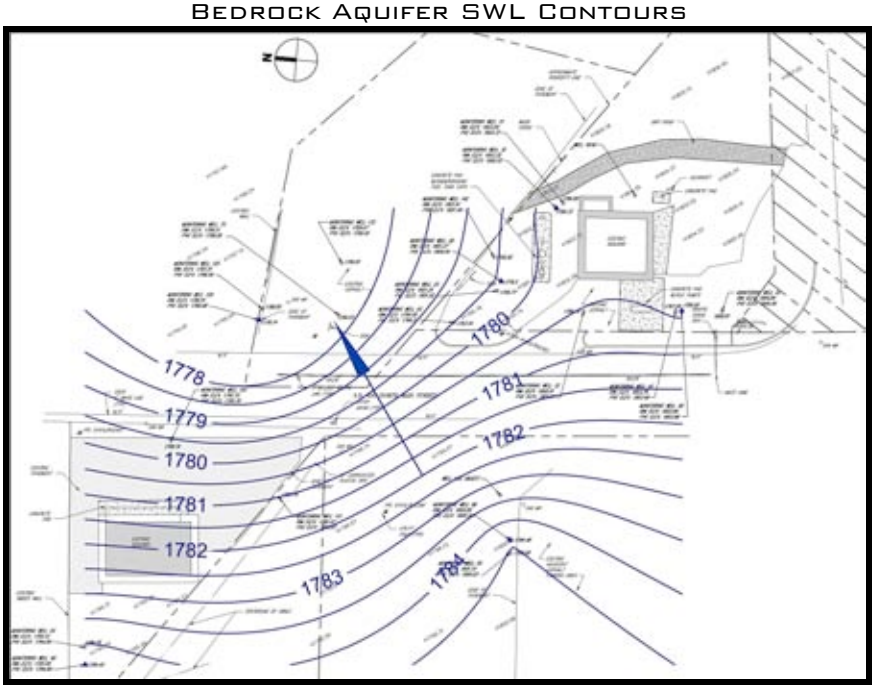
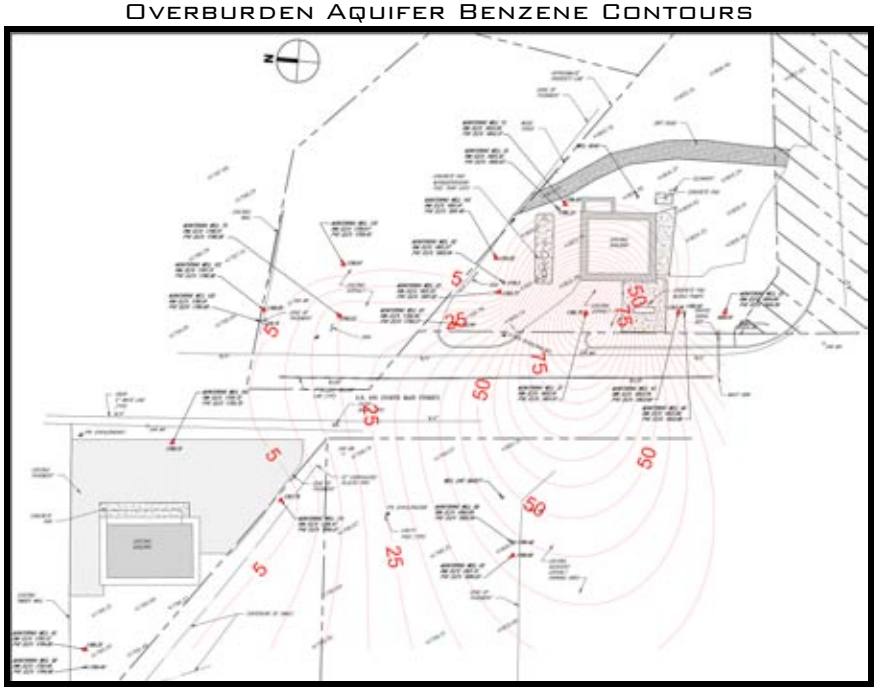


Figure 4
Comparison of Overburden and Bedrock Aquifers
Benzene Isocon Mapping September 2009 Sampling Event

Overburden Aquifer Benzene Contours



Bedrock Aquifer Benzene Contours

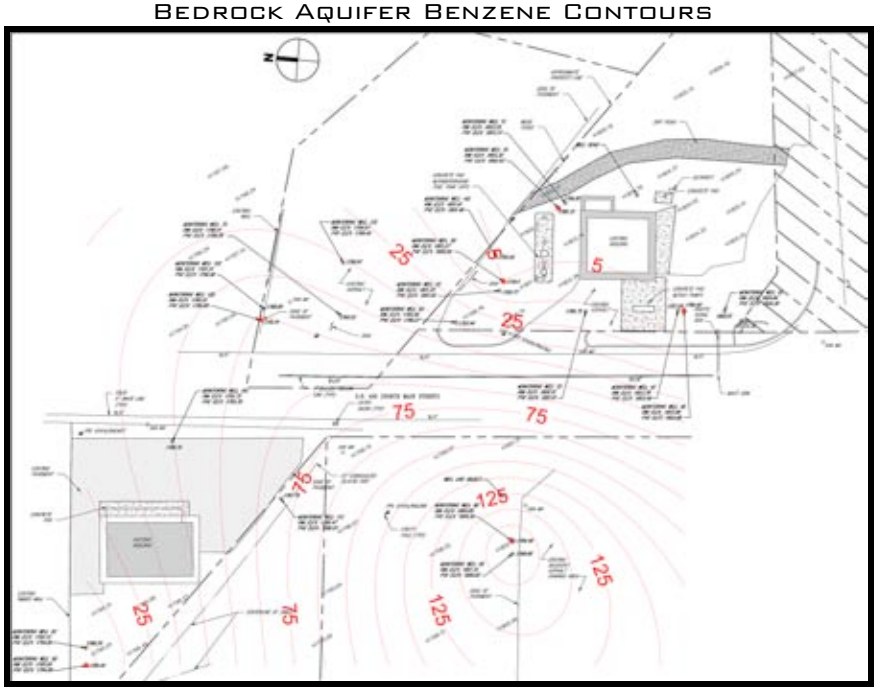
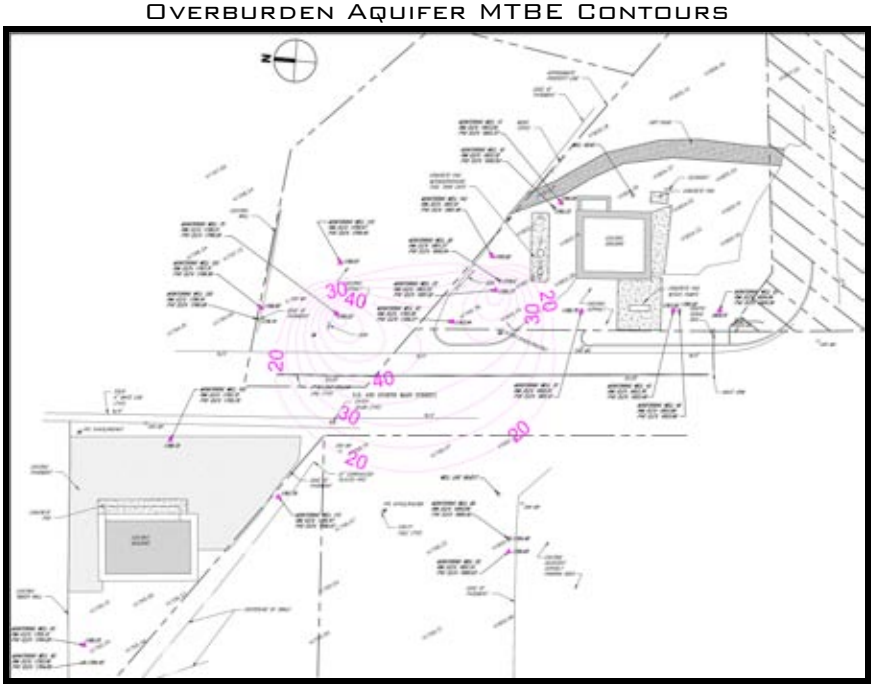


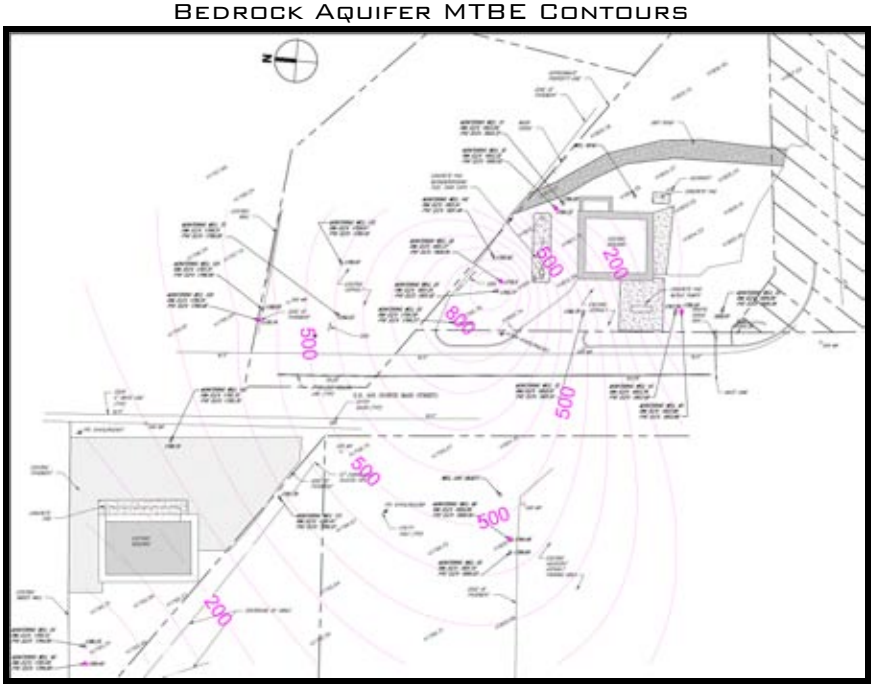
Figure 5

Comparison of Overburden and Bedrock Aquifers
MTBE Isocon Mapping September 2009 Sampling Event

Overburden Aquifer MTBE Contours



Bedrock Aquifer MTBE Contours



Site characterization efforts completed to date have not been sufficient to define the extent and degree of soil contamination, nor of groundwater contamination. As a result, additional site characterization and remedial alternatives assessments are necessary.

Constituents of Concern:

The COCs for the subject site are PaDEP unleaded gasoline constituents benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, naphthalene, 1,2,4-trimethylbenzene and 1,3,5-trimethylbenzene.

C. OBJECTIVES AND SCOPE OF WORK

This RFB seeks competitive bids from qualified consultants to complete the assessment of the confirmed petroleum release by timely completion of a **Site Characterization Plus** to fully define the environmental concerns in accordance with PaDEP requirements. The Site Characterization Plus is to be sufficiently comprehensive and is to include a thorough evaluation of appropriate remedial technologies capable of being implemented and achieving a Release of Liability (ROL) under a combination of the RUASHS and NRUSHS for the impacted soil and groundwater. **As this solicitation is for an Site Characterization Plus rather than a standard Site Characterization, it is imperative that the evaluation of remedial technologies be sufficiently detailed to permit the PaDEP to review and approve those technologies determined to be viable, so that when the remediation of the site is competitively bid, bidders will have the opportunity to select from multiple PaDEP approved viable alternative technologies.** As a result, bidders are advised that some limited scale pilot testing may be necessary to evaluate and to assess the viability of remedial technologies. With these goals in mind, bidder's proposals shall, at a minimum, include the following work elements:

Work Task 1.0 Project Planning/Management:

Task 1.1 Records Review/Documentation - The successful bidder shall review and document the site history and details of the release via document inspection, interviews and related activities including:

- Reviewing Federal, State and local environmental and other databases for the subject property and adjacent properties, as well as searching for any environmental liens filed against the property;
- Reviewing the prior tank closure report, preliminary Site Characterization Report and sampling reports completed for the subject property, copies of which are included in Attachment 1 of this RFB;
- Identifying potential concerns with impacts to public and private water supplies, buildings or structures, stormwater and sanitary sewers and other underground utilities;[2]

[2] Scope of work includes the notification requirements specified in 25 PA Code §245.305

- Identifying potential off-site sources, if any, which may have contributed to the identified contamination.
- Identifying drinking water wells on or within a ½ mile radius of the subject site;
- Documenting of properties within a ½ mile radius of the subject site being connected to public water supplies; and,
- Reviewing the suspected location and volume of the release and affected media (soil, groundwater, surface water and/or vapor).

The successful bidder shall document the property historical records review and interviews by preparing a written detailed summary of research findings including site and vicinity general setting, current land use and planned land use on the property, descriptions of existing and proposed structures, utilities, groundwater wells, availability and connections to public water supplies, other improvements on the site and current and past uses of adjoining properties. A written summary of findings shall be prepared and submitted to the Technical Contact and the Solicitor and shall include a detailed discussion of existing and historical underground storage tanks (USTs), any above ground storage tanks (ASTs), pump islands, canopies and underground product conveyance piping systems including diagrams and any other fuel handling, storage or distribution facilities and any potential off-site sources which may have contributed to the contamination. Documentation of this initial work phase shall include maps, sketches, photos, interview sheets, or other relevant documentation supporting the text.

Task 1.2 Preparation of Project Guidance Documents - Documents to be prepared include a Site Specific Health And Safety Plan, a Field Sampling And Analysis Plan, a Quality Assurance/Quality Control Plan, a Pennsylvania One Call Notification Plan, a PennDOT Access/Notification Plan and/or other plans that may be required by regulations or that may be necessary and appropriate.[3] Where applicable, the pertinent project guidance documents should be prepared in accordance with 25 PA CODE § 245.

Task 1.3 Project Management – The successful bidder shall complete necessary, reasonable and appropriate project management activities for the duration of the contract period consistent with release investigation projects. Such activities would be expected to include client communications/updates and meetings, permitting, record keeping, subcontracting, personnel and subcontractor management, quality assurance/quality control, scheduling and other activities.

[3] In accordance with 25 PA Code 245.309. Successful bidder shall be responsible for contacting Pennsylvania One Call prior to any invasive field work. In addition, successful bidder shall be responsible for obtaining all necessary permits for monitoring wells drilled in PennDOT or municipal rights-of-ways or cartways.

Work Task 2.0 – Work Plan Implementation Activities:

Task 2.1 Licensed Professional Survey of Site/Base Map Preparation – The successful bidder shall have a professional survey of the site and adjacent/nearby properties impacted by the release and where borings and wells are located completed by a Pennsylvania-licensed surveyor. The base map shall include all site features (i.e. - buildings, structures, property boundaries, USTs, ASTs, conveyance lines (if known), pump islands, canopies, tank pit observation wells, groundwater monitoring wells and soil boring locations, supply wells, overhead and underground utilities, topography, uses of adjacent properties, rights-of-way, property boundaries, etc.). A professionally sealed reproducible base map shall be included in the SCPR.

Task 2.2 Monitoring Wells and Soil Borings – The successful bidder shall complete necessary repairs on existing well driveover caps and install a sufficient number of additional groundwater monitoring wells and soil borings, at appropriate locations, both on- and off-the subject property, to fully define the extent of contamination. Bidders shall identify the locations and construction details of all proposed wells and borings, along with a narrative detailing the rationale for each proposed well and boring as part of their bid submittal.

At a minimum, bidders shall install provide for the following:

Repairs to Existing Wells – Protective monitoring well driveovers and/or internal PVC riser piping shall be repaired or replaced for the following existing wells:

Well 1s – PVC Riser is to be cut back using an internal pipe cutter and fit with proper compression plug

Well 1d – Concrete pad and driveover to be replaced

Well 2s - Concrete pad and driveover to be replaced

Well 2d - Concrete pad and driveover to be replaced

Well 5s - PVC Riser is to be cut back using an internal pipe cutter and fit with proper compression plug

Well 7s - Concrete pad and driveover to be replaced

Well 8s - Concrete pad and driveover to be replaced

Well 13s - PVC Riser is to be cut back using an internal pipe cutter and fit with proper compression plug

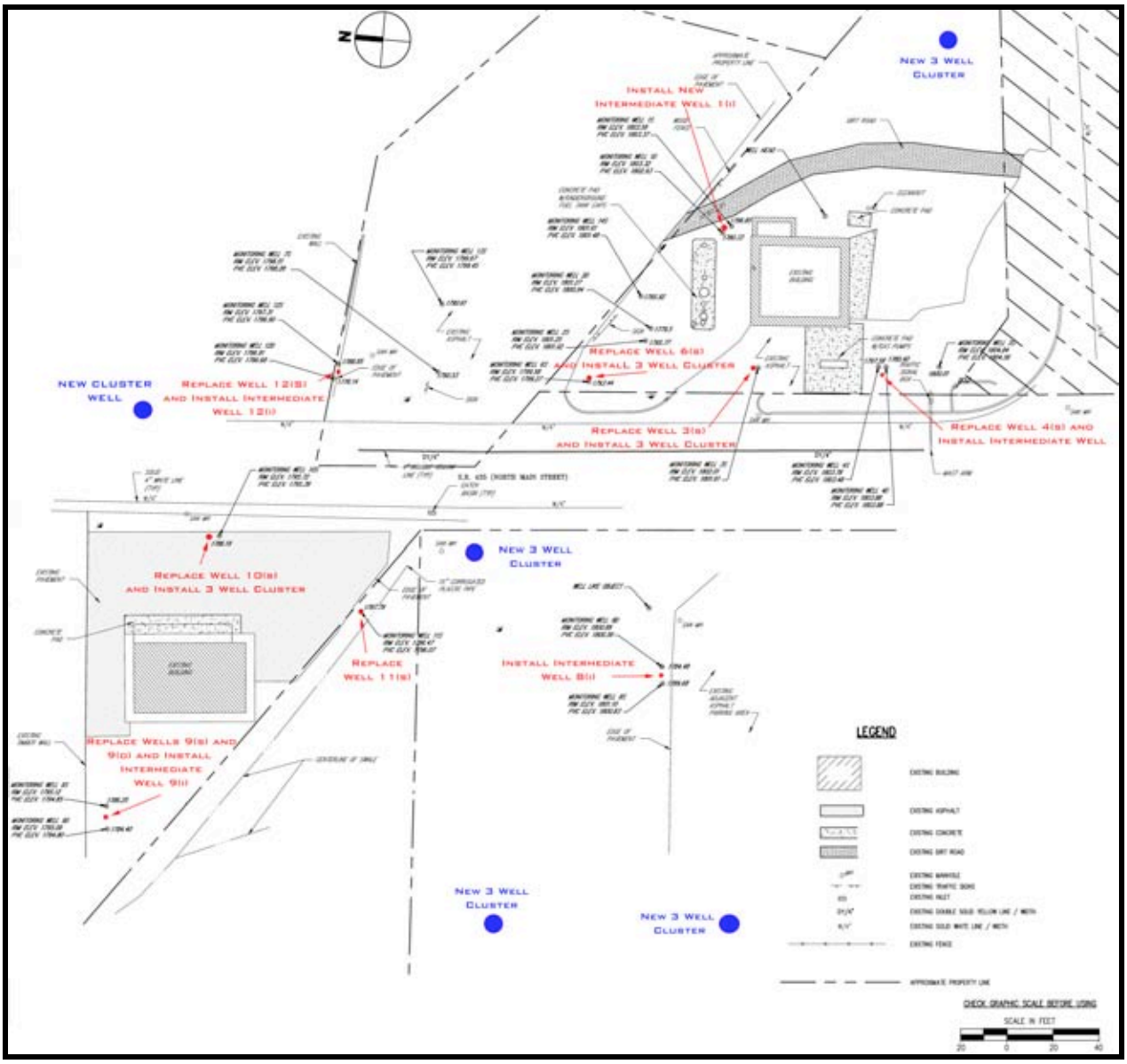
Well 14s - Concrete pad and driveover to be replaced

Installation of New Wells and Replacement of Existing Wells – Existing wells at the site include shallow overburden wells "s" wells, and deeper wells completed in the bedrock, "d" wells. However, the well logs show that an intermediate zone of weathered bedrock exists between the unconsolidated overburden materials and the underlying competent bedrock. Currently, no wells permit monitoring of that zone. Therefore, at certain locations, as approximately shown on Figure 6, additional intermediate zone "i" wells and/or additional bedrock wells need to be installed. Furthermore, at some of these locations the existing wells are not properly constructed and must be replaced. Specifically:

1. An intermediate well 1i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock in the vicinity of existing wells 1s and 1d in order to form a well cluster at this location.
2. The existing well 3s is to be abandoned and replaced with a properly constructed overburden well. Also, at that location, an intermediate well 3i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock; and, a bedrock monitoring well, 3d, is to be constructed to form a well cluster at that location.
3. The existing well 4s is to be abandoned and replaced with a properly constructed overburden well. Also, at that location, an intermediate well 4i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock.
4. The existing well 6s is to be abandoned and replaced with a properly constructed overburden well. Also, at that location, an intermediate well 6i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock; and, a bedrock monitoring well, 6d, is to be constructed to form a well cluster at that location.
5. An intermediate well 8i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock in the vicinity of existing wells 8s and 8d in order to form a well cluster at this location.
6. The existing wells 9s and 9d are to be abandoned and replaced with properly constructed overburden and bedrock wells. Also, at that location, an intermediate well 9i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock to form a well cluster at that location.
7. The existing well 10s is to be abandoned and replaced with a properly constructed overburden well. Also, at that location, an intermediate well 10i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock; and, a bedrock monitoring well, 10d, is to be constructed to form a well cluster at that location.
8. The existing well 11s is to be abandoned and replaced with a properly constructed overburden well.
9. The existing well 12s is to be abandoned and replaced with a properly constructed overburden well. Also, at that location, an intermediate well 12i is to be constructed in the weathered material between the unconsolidated materials and competent bedrock to form a well cluster at that location.

In addition to the replacement of existing wells and installation of new intermediate and deep zone wells, new 3 well clusters are to be installed at 5 new locations as approximately shown on Figure 6. At each of those locations a shallow well completed in the overburden materials, an intermediate well completed in the weathered bedrock zone between the unconsolidated materials and the competent bedrock, and a bedrock well are to be completed to form each well cluster.

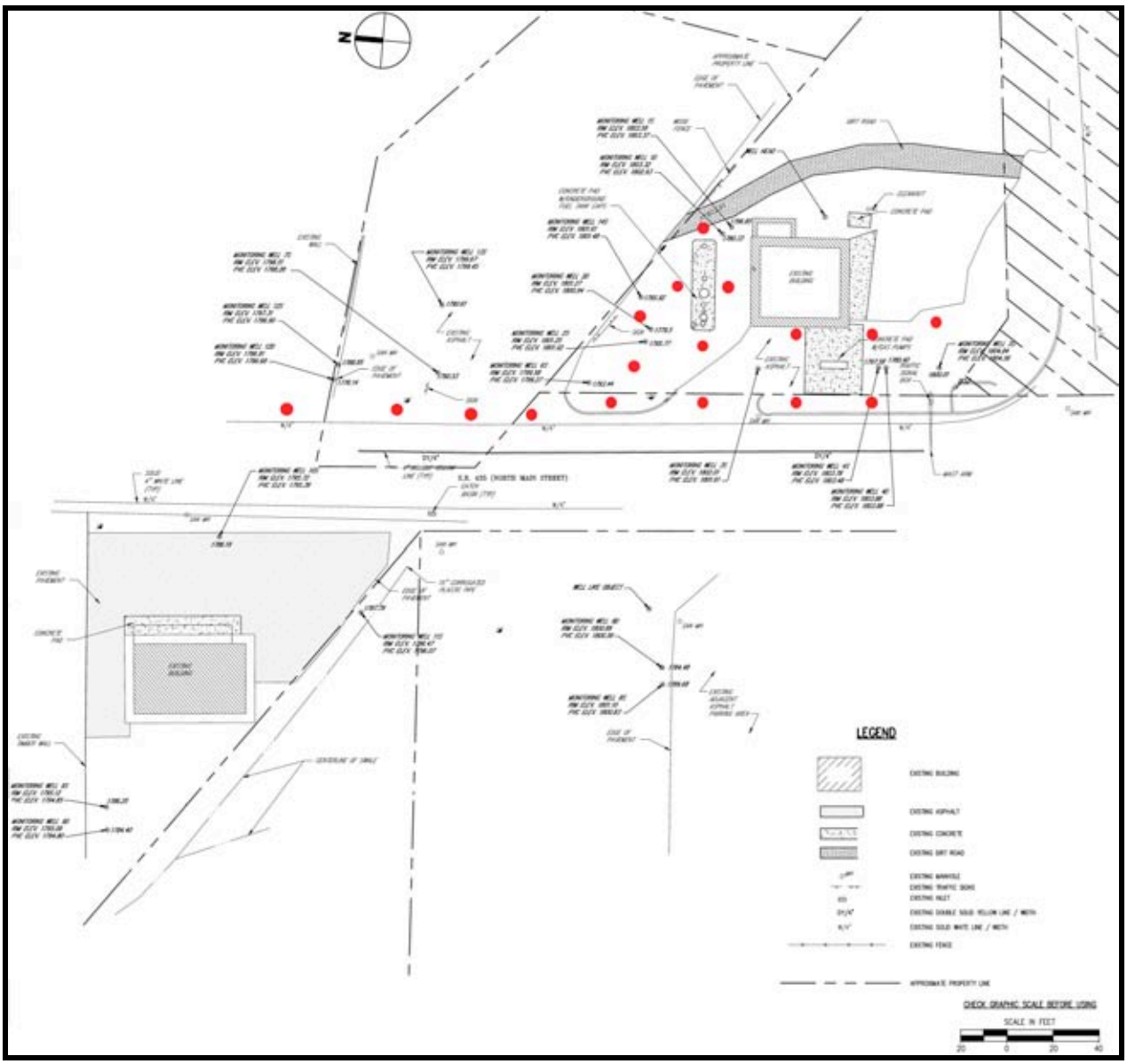
Figure 6
Approximate Locations of New Cluster Wells



All wells that are to be abandoned shall be drilled out to remove the existing well screens and prior well construction materials and then sealed by tremie grouting.

Installation of New Soil Borings – As note by PaDEP's correspondence dated July 30, 2008, the delineation of soil impacts has not been completed. To address this concern, the successful bidder shall, at a minimum, install, log and sample additional soil borings at the approximate locations shown on Figure 7. Information relating to soil impacts that is obtained from the soil borings shall be combined with soil data collected from overburden monitoring well installations to assess the extent of soil contamination from the release. **All soil borings are to be completed using GeoProbe or similar direct push techniques.**

FIGURE 7
APPROXIMATE LOCATIONS OF SOIL BORINGS



As part of the installation of the monitoring wells and soil borings, the selected consultant shall assure the following:

1. As a minimum, all soil boring and monitoring well installation work shall be directed and overseen by a geologist under the direct supervision of a Pennsylvania Registered Professional Geologist, in order to assure complete and accurate identification of the subsurface materials encountered and to assure proper construction of the monitoring wells.
2. The overseeing geologist shall conduct continuous geological characterization and screening of soil from borings and overburden wells and cuttings from weathered and competent bedrock wells using a photoionization ionization detector (PID). Continuous geological logs shall be prepared for each boring and monitoring well using standard and consistent classification system procedures (e.g., Modified Burmister or USCS). The soil boring and well logs shall be reviewed, approved sealed by a Pennsylvania Registered Professional Geologist.
3. For each soil boring, **as well as from each new and replacement well that is installed**, the overseeing geologist shall collect discrete soil samples from a depth coincident with the water table. One additional sample shall also be collected at any depth interval with a PID response significantly greater than the typical reading for that boring and that is greater than 50 ppm. Historical data from existing wells and contemporaneous data from drilling and boring activities should be considered while sampling. Soil samples will be collected in laboratory-provided methanol preserved containers in accordance with EPA Method 5035, packed on ice and transported to an independent NELAC or PA Act 252 certified testing laboratory for analysis of the COCs identified by PaDEP's Revised Short List of Petroleum Products for unleaded gasoline and kerosene (i.e.– benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, naphthalene 1,2,4-trimethylbenzene and 1,3,5- trimethylbenzene) via EPA Method 5035/8260B;
4. Soil borings are to be completed using direct push techniques or continuous split spoon sampling through hollow stem augers.
5. Upon completion, each soil boring shall be backfilled with bentonite pellets or chips, which shall be hydrated with clean water to seal the borings.
6. Overburden wells SHALL NOT be drilled using air rotary methods unless direct push or continuous split spoon sampling through hollow stem augers is completed prior to the use of air rotary drilling. This is to insure that proper logging and sampling of the overburden materials associated with those wells is completed.
7. Well clusters should be installed such that bedrock wells are installed prior to intermediate zone wells, prior to unconsolidated materials wells to prevent damage to the shallower wells.
8. All monitoring wells shall be constructed of minimum 2-inch internal diameter well screens and riser pipe. **Centralizers must be used** to assure that the sand packs are evenly distributed around the well screens.
9. Overburden wells shall be constructed such that the well screen extends from the bottom of the boring to a point at which the screen straddles the unsaturated/saturated zone interface. Well screens and sand packs are to be sized appropriately to preclude or at least minimize sediment intrusion to the wells.
10. Each monitoring well riser pipe shall be fitted with a pad locked compression cap, and will be completed at the surface with a water tight securable manhole, set in concrete flush with the ground surface.
11. All padlocks are to be keyed alike, and 1 set of keys is to be provided to the Technical Contact upon completion of the well installations.

All wells shall be completed following industry standard techniques and in a manner consistent with the criteria established by the Pennsylvania Department of Environmental Protection's Groundwater Monitoring Guidance Manual dated December 1, 2001 (Document # 383-3000-001).

Bidders shall, within their bid packages, provide written detail of their proposed drilling and construction techniques for all wells and borings.

Soil cuttings and liquids generated during the drilling activities shall be containerized disposed of offsite in a manner consistent with the protocols set forth by PaDEP. Disposal of soil cuttings and liquids shall be arranged through a certified waste disposal subcontractor.

Soil cuttings and liquids generated during the drilling activities may be temporarily stored on-site, but shall be removed from the subject site in a timely manner. Temporary on-site storage shall not exceed 90-days from the date of initiation of well drilling.

The newly installed monitoring wells shall be properly developed to promote adequate hydraulic connection between the aquifer and the well. Well development shall be completed via a combination of mechanical surging and pumping, and shall be continued until such time as the well is reasonably free of sediment. For the purpose of this RFB it should be assumed that a minimum of 12 well volumes shall be removed in order to develop each well.

Groundwater and sediment removed from the wells during development shall be containerized and disposed of offsite in a manner consistent with the protocols set forth by the PaDEP. Disposal of extracted groundwater shall be arranged through a certified waste disposal subcontractor.

The groundwater may be temporarily stored on-site, but shall be removed from the subject site in a timely manner. Temporary on-site storage shall not exceed 90-days from the date of initiation of well development.

Subsequent to installing the soil borings and wells, all wells and borings shall be surveyed by a professional surveyor to identity locations on the scaled base site plan and to determine top of casing elevations (elevation above mean sea level).

Task 2.3 Summary Soil Sampling Reporting - Upon completion of soil boring and monitoring well installations the successful bidder shall review and analyze the results of the well installations and the reports of the laboratory testings of the soil samples and shall compile and submit a Summary Soil Sampling Report (SSSR). **The SSSR shall include copies of the completed logs for each soil boring and monitoring well, copies of the laboratory reports of the soil sample analyses, a summary table of soil analytic results, and field notes from the installation s and samplings.** One copy of each SSSR shall be provided to PaDEP, 1 copy of each SSSR shall be provided to the Solicitor and 1 additional copy of each SSSR shall be provided to the ICFI Representative. **SSSRs are to be**

submitted to the parties identified above within 30-days of the successful bidder's receipt of the laboratory results of the soil samplings.

Task 2.4 Groundwater Sampling - The successful bidder shall complete regular quarterly groundwater monitoring of all on-site and off-site monitoring wells, until such time as continued sampling is determined by PaDEP or the solicitor to no longer be necessary[4].

Prior to the collection of any groundwater samples, the successful bidder shall check all wells for the presence of free phase petroleum product and collect and record product thicknesses (if present) and static water levels measurements for all wells. If free phase product is present in any of the wells, the consultant shall remove and contain the product and shall immediately verbally notify the Technical Contact and confirm the notification via email.

Following the collection of static water levels from all wells, the successful bidder shall purge and sample all wells in which no free phase petroleum product was present.

Low-flow groundwater purging/sampling techniques consistent with EPA's April 1996 Low-Flow (Minimal Drawdown) Ground -Water Sampling Procedures (EPA/540/S-95/504) shall be used to purge and collect groundwater samples from the monitoring wells unless this method is not viable for documented technical reasons. Full groundwater sampling records as identified by the low-flow guidance document shall be completed and maintained for each sampling event.

All groundwater samples shall be placed in new laboratory pre-cleaned 40 milliliter (ml) glass VOC vials, acid preserved with hydrochloric acid and packed on ice and transported to an independent NELAC or PA Act 252 certified testing laboratory for analysis of the COCs identified by PaDEP's Revised Short List of Petroleum Products for unleaded gasoline (i.e.– benzene, toluene, ethylbenzene, xylenes, isopropylbenzene, MTBE, naphthalene 1,2,4-trimethylbenzene and 1,3,5- trimethylbenzene) via EPA Method 5030B/8260B.

During each sampling event, 1 trip blank (provided by laboratory), 1 field blank taken by the sampling personnel and 1 blind duplicate QA/QC groundwater sample shall be collected and analyzed for the COCs.

Full chain-of-custody records shall be completed and maintained for each sampling event.

Bidders, within their bid packages, shall provide written detail of their proposed purging, sample collection and sample handling techniques and methods.

Task 2.5 Quarterly Groundwater Sampling Reporting - Upon completion of each quarterly groundwater sampling event, the successful bidder shall review and analyze the

[4] For bidding purposes, bidders should assume 8 quarters of quarterly monitoring.

results of the static water level measurements and the reports of the laboratory testings and shall compile and submit a Quarterly Groundwater Sampling Report (QGWSR). **Each QGWSR shall include copies of the static water level elevations collected from each well, contour maps of the static water levels for each aquifer (ie – unconsolidated overburden, weathered zone and bedrock), copies of the laboratory reports of the sample analyses, a summary table of analytic results and static water levels, including all prior sampling results, isocon mapping of COCs found above the UARSHS and copies of the low-flow purging records and field notes of each sampling event.** One copy of each QGWSR shall be provided to PaDEP, 1 copy of each QGWSR shall be provided to the Solicitor and 1 additional copy of each QGWSR shall be provided to the ICFI Representative. **QGWSRs are to be submitted to the parties identified above within 30-days of the successful bidder's receipt of the laboratory results of the sampling event.**

Task 2.6 Aquifer Testing – Slug tests shall be complete within a sufficient number of wells to identify the horizontal and vertical spatial variability in the aquifer characteristics[5]. Rising head tests shall be completed in unconsolidated materials wells and both rising and falling head tests shall be completed in the weathered bedrock and bedrock monitoring wells. The evaluation of the rising and falling head test data shall be performed according to the Bouwer and Rice method for completely or partially penetrating wells in unconfined or semi-confined aquifers. Should the test data suggest confined aquifer conditions, then another method of data reduction shall be used such as the curve matching techniques developed by Cooper.

Task 2.7 Fate and Transport Modeling - Fate and Transport Modeling shall be completed using the Quick Domenico two-dimensional analytical model to predict fate and transport of COCs exceeding the UARSHS in groundwater beneath the subject site, if appropriate; however, due to the presence of groundwater within the underlying bedrock, alternative fate and transport models may be more appropriate.

Bidders shall identify the fate and transport model they propose to use, along with a detailed discussion of why that particular model is proposed and why it is considered to be appropriate for the site.

Task 2.8 Vapor Intrusion Into Buildings – The successful bidder shall complete vapor intrusion investigations consistent with the Land Recycling Technical Guidance Manual – Section IV.A.4 Vapor Intrusion Into Buildings from Groundwater and Soil under the Act 2 Statewide Health Standard, Document 253-0330-100, dated January 24, 2004. Specifically, vapor intrusion investigations/assessments shall be completed for the on-site automotive repair structure, as well as the Kay's Restaurant and Pocono Stoves structures.

[5] Slug test work shall be completed as per accepted industry standards and in accordance with the American Society for Testing and Materials (ASTM) standards as defined in ASTM D4104-96 (2004), ASTM D5785-95 (2000), ASTM D5881-95 (2000) and ASTM D5912-96 (2004).

Bidders shall identify the locations and number of soil and air quality sampling locations to be included, along with a detailed rationale for the selection of those locations and a detailed description of the methodologies that will be employed to collect and analyze air quality samples.

Work Task 3.0 – Waste Management and Disposal:

The successful bidder shall 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 Scope of Work 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.

Bidders will be responsible for including costs in their bid response to cover the disposal of all potential waste related to the tasks included in the SOW. Waste disposal costs shall be included in the not-to-exceed-price quoted for all work tasks, as appropriate

The successful bidder shall manage purge water from the on-site monitoring wells consistent with the guidelines set forth by PaDEP's Groundwater Monitoring Guidance Manual PaDEP Document # 383-3000-001.

Soil/rock cuttings and liquids generated during the drilling activities shall be disposed of offsite in a manner consistent with the protocols set forth by the PaDEP. Disposal of soil/rock cuttings shall be arranged through a certified waste disposal subcontractor.

Work Task 4.0 - Risk Assessment and Feasible Remedial Alternatives Analysis:

Task 4.1 Risk Assessment Evaluation – A risk assessment evaluation shall be completed consistent with the guidelines provided in the Act 2 Guidance Manual (applicable portions of Sections II.C.4 IV.G and IV.H). These sections provide general information on risk assessment; developing site appropriate standards; discuss potential for pathway elimination; and guidance on site-specific human health assessment procedures. This guidance should be followed to conduct a risk assessment. Results of the risk assessment should be taken into consideration when developing a feasible remedial strategy and determining which standards would be appropriate for the Site. Results of the evaluation shall be discussed in a Risk Assessment and Feasible Remedial Alternatives Analysis Report, which is to be completed and included as an attachment to the Site Characterization Plus Report.

Task 4.2 – Remedial Alternatives Analysis A Remedial Alternatives Analysis shall be completed for the subject site to compare cleanup alternatives and evaluate which remedial action is most appropriate for the subject site. The evaluation should specifically focus on eight (8) key considerations including cost-effectiveness, proven performance, public and

environment protectiveness, regulatory compliance, reliability, practical implementation, health & safety and effects on public health and the environment. Some limited scale pilot testing may be necessary to evaluate and to assess the viability of remedial technologies. The findings of the Remedial Alternatives Analysis shall be summarized and presented as part of the Risk Assessment and Feasible Remedial Alternatives Analysis Report, which is to be completed and included as an attachment to the Site Characterization Plus Report.

Task 4.3 – Risk Assessment and Feasible Remedial Alternatives Analysis Report - Following the completion of the proposed Risk Assessment Evaluation and Remedial Alternatives Analysis, a Risk Assessment and Feasible Remedial Alternatives Analysis Report shall be prepared for the subject site, and shall be included as an attachment to the Site Characterization Plus Report. The report shall detail the procedures and findings from the completed baseline risk assessment and describe the calculations and resultant estimate of the amount of hydrocarbon mass present in the subject site's subsurface. It shall also take into consideration and summarize the assumption, parameters, and predictions from the predictive modeling scenarios included in the Site Characterization Plus Report. Figures and appendices supporting the findings of the report shall be attached to further illustrate the current condition of the subject site. The report shall appropriately evaluate the subject site and assess the risks as well as provide a proper closure strategy and remedial alternative for the subject site. Information/data generated during the interim remedial activities conducted at the subject site shall be incorporated into this task.

Work Task 5.0 – Site Characterization Plus Report:

Reporting of the results of the site characterization shall be in the form of a Site Characterization Plus Report (SCPR) which shall include sufficiently detailed remedial technology evaluations to permit PaDEP's review and approval of those technologies which are determined to be viable to remediate the identified contamination at the subject site. The format and content of the report shall be generally consistent with 25 PA Code §245 309, except that a substantially more rigorous evaluation of the remedial alternatives shall be included. The SCPR shall be sealed by a Professional Geologist registered in the Commonwealth of Pennsylvania. A draft of the SCPR shall be submitted electronically (in Adobe PDF format) to the Technical Contact and a hard copy shall be submitted to both the Solicitor and Technical Contact for review/comment prior to finalizing the SCPR. Once the successful bidder has addressed comments on the draft, the successful bidder shall finalize and issue the SCPR to PaDEP. All AutoCAD maps/plans included in the report (e.g., site plan/base map, groundwater elevation maps, dissolved plume maps. soil contaminant distribution maps, etc.) shall also be submitted electronically on CD to the Technical Contact.[6]

[6] Figures and AutoCAD drawings are to be prepared on no larger than Ledger Sized (11" x 17") paper.

The scope of work as described above shall be conducted in accordance with industry standards/practices, and consistent with the PaDEP requirements and guidelines (e.g. the current PaDEP Groundwater Monitoring Guidance Manual Document No 383-3000-0011)[7]

Each bidder should carefully review the existing site information provided in the attachments to this RFB and seek out other appropriate sources of information to develop a cost estimate and schedule leading up to and including preparing the SCPR. Bids that demonstrate a command of existing site information and offer a comprehensive/complete vision for the necessary characterization of the site to fully define the environmental concerns associated with the release in accordance with PaDEP requirements and fully evaluate appropriate remedial technologies capable of being implemented to attain an ROL under the UARSHS for the impacted soil and groundwater will be regarded as responsive to this solicitation.[8]

D. QUALIFICATION QUESTIONS

In order for proposals to be considered administratively complete, bidder's proposals must provide written answers to the four (4) qualifications and experience questions provided below:

1. Does your company employ (not subcontract) a Pennsylvania Licensed Professional Geologist (P.G.) that is designated as the proposed project manager? How many years of experience does this person have?
2. How many Chapter 245 Corrective Action projects in the State has your company and/or the Pennsylvania Licensed P.G. closed after the completion and acceptance of an SCR, RAP and RACR (i.e., obtained relief from liability from the PaDEP) using the Statewide Health or Site Specific Standards? Please list up to five.
3. How many Chapter 250 Corrective Action projects in the State has your company and/or the Pennsylvania Licensed P.G. closed (i.e., obtained relief from liability from the PaDEP) using the Statewide Health or Site Specific Standards? Please list up to five.
4. 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, including whether the conditions of the FP or PFP contract were met.

[7] In the event that site conditions preclude adherence to industry standards/practices, and consistent with the PaDEP requirements and guidelines bidders shall proposal alternate techniques which must be preapproved by the Technical Contact and PaDEP prior to implementation.

[8] If bidders believe additional work steps beyond work scope items identified herein are necessary to complete the SCPR, these items should be identified in the bidder's proposal. Reasonable, necessary and appropriate work that is performed outside of this scope of work due to unforeseen conditions shall be reimbursed according to the unit rate schedule.

E. TYPE OF CONTRACT/BID INSTRUCTIONS

The Solicitor wishes to execute a mutually agreeable **Cost Not-to-Exceed Time-and-Materials Contract** (Remediation Agreement) based on unit prices for labor, equipment, materials, subcontractors/vendors and other direct costs. The total cost quoted by the successful bidder will be the maximum amount to be paid by the Solicitor unless a change in scope is authorized and determined to be reasonable, necessary and appropriate.

A copy of the Standard Remediation Agreement is included as an attachment to this RFB solicitation. This sample agreement has been previously employed by other Solicitors on other PaUSTIF-funded claims. The bidder must identify in the bid response document any modifications that they wish to propose to the Standard Remediation Agreement language which is attached hereto, other than obvious modifications to fit this RFB (e.g., names and dates). The number and scope of any modifications to the standard agreement will be one of the criteria used to evaluate the bid.

All bid responses must clearly and unambiguously state whether or not the bidder accepts the Remediation Agreement included in the attachments hereto "as is," or provide a cross-referenced list of requested changes to this agreement. Any requested changes to the agreement should be specified in the bid response; however, these changes will need to be reviewed and agreed upon by both the Solicitor and the PaUSTIF.

The Remediation Agreement costs shall be based on unit prices for labor, equipment, materials, subcontractors/vendors and other direct costs.

Because site characterization is an iterative process with each phase of characterization being shaped by the results of the previous phase, it is realistic to assume that reasonable, necessary and appropriate deviations from and modifications to this Scope of Work may occur during the project. The Remediation Agreement states that any significant changes to the Scope of Work will require approval by the Solicitor, PaUSTIF and PaDEP.

The bidder shall provide its bid using the Standardized Bidding Spreadsheet format included in the attachments hereto with brief descriptions provided for each task provided in the body of the bid document. An electronic version of the Standardized Bidding Spreadsheet (in Microsoft Excel Format) has been provided in the attachments. **In addition, the bidder shall provide a unit rate schedule that will be used for any out-of-scope work on this project.**

The bidding firm **MUST INCLUDE THE FOLLOWING** in their proposal:

- A demonstration of the bidder's understanding of the existing site information provided in this RFB, industry standard practices and the objectives of the project.

- The bidder's approach to achieving the project objectives (implementing the scope of work) efficiently.

- A detailed **Cost Not-to-Exceed** price quotation for completion of the scope of work; using the standardized format provided within the Standardized Bidding Spreadsheet included with Attachment 1, including a rate schedule for any out-of-scope work. **The following information relating to the bid pricing must be included:**

    - The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs and equipment;
    - The bidder's proposed mark-ups on other direct costs and subcontractors (if any);
    - Estimated cost by task and total costs must be defined within the proposal text **AND** on the Standardized Bidding Spreadsheet included with Attachment 1; and,
    - The bidder's estimated total cost by task consistent with the proposed scope of work identifying all level-of-effort and cost assumptions.

- A detailed schedule of activities for completing the proposed scope of work inclusive of reasonable assumptions regarding the timing and duration of client and/or regulatory agency reviews (if any) need to complete the scope of work defined by this RFB;

- Indication of whether the bidder accepts or seeks changes in the proposed contract/terms and conditions;

- A copy of the bidder's proposed contract/terms and conditions;

- The bidder's levels of insurance;[9]

[9] The successful bidder agrees and shall submit evidence to Solicitor and Technical Contact before beginning work that bidder has procured and will maintain Workers Compensation: commercial general liability insurance in the amount of $1,000,000; contractor pollution liability insurance in the amount of $1,000,000; automobile liability insurance in the amount of $1,000,000; and professional liability insurance in the amount of $1,000,000 for the work to be performed.

- The bidder's proposed unit cost rates for each expected labor category, subcontractors, other direct costs and equipment;
- The bidder's proposed markup on other direct costs and subcontractors (if any);
- Identification and detailed description of subcontractor use and involvement;
- Identification of any exceptions, assumptions or special conditions applicable to the scope of work;
- Costs by task must be defined within the proposal text and on the cost spreadsheet included in Attachment 1 and the bidder's cost by task consistent with the proposed scope of work identifying all level-of-effort and costing assumptions;
- A statement of qualifications including that of any major subcontractor(s);
- Description of the bidders approach to working with PaDEP from project inception through PaDEP approval of the SCR. Description of how PaDEP would be involved proactively in the resolution of any technical issues and how the PaDEP case team will be kept informed of activities at the subject site;
- Description of how the Solicitor and ICFI/PaUSTIF will be kept informed as to project progress and developments and how Solicitor (or designee) will be informed of and participate in evaluating technical issues that may arise during this project;
- Answers to the qualification questions discussed in the RFB;
- Identification and resumes of the members of the proposed project team for key project staff, including the proposed Pennsylvania Registered Professional Geologist of Record who will be responsible for overseeing the work and applying a Pennsylvania Professional Geologist's Seal to the project deliverables.

The bidder shall provide its bid pricing using the format identified in this RFB and will provide brief descriptions of each task in the body of the bid document. Also, the bidder must complete the detailed cost sheet (in Microsoft Excel Format) included within the attachments to this RFB.

The scope of work, as described within this RFB, shall be conducted in accordance with industry standards and practices, and consistent with PaDEP requirements and guidelines. The successful bidder's work to complete all work tasks associated with this RFB will be subject to ongoing review by the PaUSTIF or its representatives to assess whether the work actually completed and the associated incurred costs are reasonable, necessary and appropriate

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 tasks identified in the bid. The standard practice of tracking total cumulative costs by bid task will also be required to facilitate invoice review.

The bid responses must clearly and unambiguously state their acceptance of the provided contract or must clearly cross reference any requested changes.

Each bid package received will be assumed to be good for a period of up to 120 days after receipt unless otherwise noted. Please note that, unless otherwise required under provisions Pennsylvania Right-To-Know Law, ICFI, PaUSTIF and Earth Resource Associates, Inc. will treat the bids as confidential. In addition, for your reference, a copy of the PaUSTIF Competitive Bidding Fact Sheet is provided within attachments. The aforementioned guidance document provides you with additional information relative to the bidding process.

F. MANDATORY SITE VISIT

THERE WILL BE A MANDAORY SITE MEETING ON APRIL 19, 2011. The Technical Contact (or his designee) will be at the site at 11:00 AM to answer questions and conduct a site tour for **ONE (1)** participant per firm. **This meeting is mandatory for all bidders – no exceptions. Any firm that does not attend the April 19, 2011 mandatory site visit will not be eligible to submit a bid response.** A confirmation of your intent to attend this meeting is requested to be provided to the Technical Contact via e-mail, no later than April 14, 2011 with the e-mail subject line containing "FORMER LBH BOYERSERVIICE STATION SITE - PAUSTIF CLAIM 1995-0305(M) – SITE MEETING ATTENDANCE CONFIRMATION." The name and contact information of the prospective bidding firm should be included in the body of the e-mail.

ATTACHMENTS

1) July 1996 Datom Products Site Characterization Report
2) August 27, 1996 PaDEP SCR Review Letter
3) November 2, 1996 Datom Products Tank Closure Report
4) November 14, 1996 PaDEP Comment Letter on Revised Characterization
5) December 6, 1996 Datom Additional Characterization Proposal
6) December 27, 1996 PaDEP Comment Letter
7) March 1997 Datom Products Site Characterization Report
8) June 13, 2003 GEA Groundwater Summary Report
9) July 28, 2004 GEA Proposed RAP
10) August 10, 2004 PaDEP RAP Denial Letter
11) September 30, 2005 GEA Revised RAP
12) November 3, 2005 PaDEP RAP Denial Letter
13) November 30, 2005 GEA Revised RAP
14) October 31, 2006 GEA GW Sampling Report
15) April 25, 2007 GEA Site Investigation Summary Report
16) June 13, 2007 PaDEP Review of 4-25-07 Summary Report
17) February 13, 2008 GEA Groundwater Investigation Summary
18) March 3, 2008 PaDEP Review Letter
19) July 30, 2008 PaDEP Letter Identifying Deficiencies With Site Investigations
20) November 7, 2008 GEA GW Quality Sampling Report
21) November 26, 2008 PaDEP Letter Outlining Additional Work
22) November 26, 2008 PaDEP Letter Concerning Kay's Restaurant Well
23) November 11, 2009 GW Summary Report
24) June-July 2010 GW Sampling Lab Report
25) August 2010 Sampling of Pocono Stoves Well
26) Best Available Site Mapping Provided to the Fund
27) EPA Low Flow Sampling Guidance Document
28) PaDEP Groundwater Monitoring Guidance Document
29) PaDEP Land Recycling Technical Guidance Manual – Section IV.A.4 Vapor Intrusion Into Buildings
30) Sample Remediation Agreement
31) USTIF Competitive Bidding Fact Sheet
32) Well Logs Made Available to the Fund
33) LBH BOYER Standardized Bid Spreadsheet