City of Jacksonville, Florida

Lenny Curry, Mayor

Department of Public Works
Solid Waste Division
1031 Superior Street
Jacksonville, FL 32254
(904) 255-7500
www.coj.net

ONE CITY. ONE JACKSONVILLE.

TO: **Greg Pease, Chief, Procurement Division**

THRU: **John Pappas, P.E., Director, Department of Public Works**

FROM: **Jeffrey S. Foster, P.G., Solid Waste Environmental Engineer Manager**
Tom Fallin, P.E., Chief, Engineering and Construction Management Division

DATE: **October 13, 2017**

SUBJECT: **P-02-17 Contamination Assessment & Remediation Services For State of Florida Funded Petroleum Impacted Sites**

The Engineering Division has negotiated with the consultant selected for Contamination Assessment & Remediation Services for State of Florida Funded Petroleum Impacted Sites, resulting in the Schedule of Pay Items, Scope & Definitions, Exhibit A and Contract Fee Schedule, Exhibit B, attached. MBE firms to be utilized to meet the Participation Percentage Plan for this contract are detailed on a separate attachment.

Accordingly, this is to recommend that the City of Jacksonville enter into a contract with Tetra Tech, Inc. for Contamination Assessment & Remediation Services for State of Florida Funded Petroleum Impacted Sites, that includes the attached Scope of Services identified as Exhibit "A" and Fee Schedule identified as Exhibit "B". Each project performed under this agreement shall be authorized by an individual Purchase Order with a not-to-exceed cost applicable thereto. The maximum indebtedness of the City pursuant to this agreement is $600,000.00. The initial Period of Service will be for Three (3) years with the option to extend such contract for two (2) additional one (1) year periods upon satisfactory performance by the Consultant. Initial contract will begin upon contract execution with the expiration date for the base contract period set for three (3) years after the date of contract execution. All other terms and conditions of the Contract shall be as provided in the Request for Proposals and the Department of Public Works Prototype Agreement for professional services, as applicable.

JSF/jsf

Attachments: Exhibits A & B

MBE Participation

11/01/17 11:07:13
Procurement Division

cc: Lori A. West, Engineering Contract Specialist

TETRA TECH

Document Tracking Number 17JAX0092

October 11, 2017

Jeff Foster, PG
City of Jacksonville
Procurement Division
Attn: Professional Services Specialist
214 N. Hogan Street, Suite 105
Jacksonville, Florida 32202

Subject: Tetra Tech Proposed Rates and Definitions
Contamination Assessment and Remediation Services for State of Florida Funded Petroleum Impacted Sites
RFP Number P-02-17

Dear Mr. Foster:

Thank you for selecting Tetra Tech, Inc. to provide contamination assessment and remediation services for the City of Jacksonville (COJ) petroleum release sites, which includes the state of Florida funded petroleum impacted sites (RFP Number P-02-17).

Enclosed are Tetra Tech's rates and rate descriptions that are part of our contract GC826 with the Florida Department of Environmental Protection (FDEP). As discussed during our contract kickoff meeting, personnel rates are provided in pay items 20 and 21 of the FDEP rate schedule. Should any work be requested, which cannot be priced using the attached rates, Tetra Tech will provide pricing for negotiation. This pricing will be provided using our DCAA audited rates, and with subcontractor proposals included. It is our understanding that work completed under this contract will be invoiced separately at a rate of 75% to the FDEP and 25% to the City of Jacksonville.

Should you have any questions regarding these attached documents, please do not hesitate to contact Gregory Roof at 904-596-3576.

Sincerely,

Gregory S. Roof, PE
Senior Project Manager

Mark A. Peterson, PG
Southeast Region Manager

c: Eric Fuller, COJ
Duane Kent, PE, COJ

Tetra Tech, Inc.
8640 Philips Highway, Suite 16, Jacksonville, Florida 32256
Tel 904.636.6125 Fax 904.636.6165 www.tetratech.com

EXHIBIT A
SCHEDULE OF PAY ITEMS
Scope & Definitions

ACRONYMS AND ABBREVIATIONS

ADaPT	Automated Data Processing Tool
ANSI	American National Standards Institute
AS	Air Sparge
ASTM	American Society of Testing Materials
BPSS	Bureau of Petroleum Storage Systems
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
CAD	Computer Aided Design
CD	Compact Disk
CO2	Carbon Dioxide
COCs	Contaminants of Concern
CPT	Cone Penetrometer Test
DGPS	Differential Global Positioning System
DIPE	Disopropyl ether
DMR	Discharge Monitoring Report
DO	Dissolved Oxygen
DOH	Department of Health
DPT	Direct Push Technology
DWM	Division of Waste Management
DWM	Division of Waste Management
ECD	Electron Capture Detector
EDB	Ethylene dibromide
EDC	1,2-dichloroethane
EDD	Electronic Data Deliverable
ELCP	Environmental Laboratory Certification Program
EPA	Environmental Protection Agency
EPH	Extractable Petroleum Hydrocarbons
ETBE	Ethyl tert-butyl ether
F.A.C.	Florida Administrative Code
FDEP	Florida Department of Environmental Protection
FL-PRO	Florida Petroleum Range Organics [Laboratory Analytical Method]
FP	Field Parameter
FPR	Free Product Recovery
GC/MS	Gas Chromatography/
HP	Horse power
HPLC	High Performance Liquid Chromatography
LDA	Large Diameter Auger

MADEP	Massachusetts Department of Environmental Protection
MIP	Membrane Interface Probe
MPE	Multiphase Extraction
MR	Mud Rotary
MTBE	Methyl tert-butyl ether
NA	Natural Attenuation
NAM	Natural Attenuation Monitoring
NELAP	National Environmental Laboratory Accreditation Conference
NFA	No Further Action
NFAC	No Further Action with Controls
NFPA	National Fire Protection Association
O&M	Operation and maintenance
ORC	Oxygen Release Compound
OSHA	Occupational Safety and Health Administration
OVA	Organic Vapor Analyzer
P&ID	Piping and Instrumentation Diagram
P.E.	Professional Engineer
PCB	Polychlorinated biphenyl
PIANO	Paraffins, Isoparaffins, Aromatics, Napthenes and Olefins
PVC	Polyvinyl Chloride
RAP	Remedial Action Plan
RAPMOD	Remedial Action Plan Modification
RCRA	Resources Conservation and Recovery Act
SAR	Site Assessment Report
SCFM	Standard Cubic Feet per Minute
SM	Standard Method
SOP	Standard Operating Procedure
SPLP	Synthetic Precipitation Leaching Procedure
SSA	Supplemental Site Assessment
TAME	Tert-amyl methyl ether
TBA	Tert-butyl alcohol
TPHCWG	Total Petroleum Hydrocarbon Criteria Working Group
TPOC	Temporary Point of Compliance
VE	Vapor Extraction
VES	Vapor Extraction System
VOHs	Volatile Organic Hydrocarbons
VPH	Volatile Petroleum Hydrocarbons

1. **OFFICE ACTIVITIES:** The following pay items will be used for non-report related office activities. Travel/mobilization is generally not allowed for these activities.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Communication, Reproduction and Mailing costs.
c. If applicable, submittal of one (1) final document hard copy, and one (1) final document digital copy.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

a. Travel related costs, generally not approved for office activities.

1-1. File Review: [Per Review]. This pay item is allowed only when a site is new to an assigned Contractor. It may be allowed prior to issuance of the Task Assignment but the Contractor must secure prior permission to do so. Travel time for "File Review" is not allowed.

1-2. Site Health & Safety Plan: [Per Site]. This pay item is for the preparation of a comprehensive standard petroleum site Health and Safety Plan. Allow once per site per CONTRACTOR.

1-2.a. Site Health & Safety Plan for Continued Work at no cost to FDEP: [Per Site]. This pay item is to update an existing site Health and Safety Plan

1-3. Notice of Discovery of Contamination Package (Initial or TPOC): [Per Package]. This pay item is to prepare either the information package for the Initial Notice of Contamination Beyond Property Boundaries or the actual notices for the proposed establishment of a Temporary Point of Compliance (TPOC) beyond Property

Property Boundaries in accordance with published DEP rules, guidance and procedures. It includes completion of the Initial Notice of Contamination Beyond Property Boundaries in Rule 62-780.900, Contamination Notification Data Tables (for initial noticing packages) and copies of existing contaminant plume maps. Multiple iterations of this pay item may be allowed as the site assessment progresses when the rule requires initial notification within 10 days of discovery. However, only one pay item shall be allowed for initial notice package to address suspected "off-site" properties based on the signed and sealed plume map in a technical report and only one pay item shall be allowed for the TPOC notices prior to RAP or NAM Plan approval.

1-4. Permit Fees: [Reimbursable]. Actual permit fee invoice from permit issuer required. Cost to obtain permit is included in applicable pay items.

NOTE: When wells are exempt from Water Management District permit fees and are permitted by the DEP technical approval order, permit fees are not required and will not be reimbursable under this contract.

1-5. Off-Site Property Access Agreement: [Per Access Agreement]. Must use DEP access agreement format.

1-5.a. Site Property Access Agreement for Source Property at no cost to FDEP: [Per Site]. Must use DEP access agreement format.

1-6. Project Specific Financial Guarantee Bond (if required by DEP): [Reimbursable].

1-7. 6% handling fee for cost reimbursable items: [Reimbursable]. This pay item is limited to those items identified as "reimbursable" on the Schedule of Pay Items identified for a project and is only applicable on work assignments meeting the authorization date established under the Restated Contract.

2. **FIELD ACTIVITIES – GENERAL:** The following pay items will be used for general field activities.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Collection of field measurements by a qualified Technical Specialist or Field Technician familiar with surveying techniques.
c. Costs to incorporate collected data in the appropriate tables, maps, and cross-sections in any subsequent site reports.
d. Sample shipping.
e. Communication, Reproduction and Mailing costs.
f. Submittal of one (1) final report hard copy, and one (1) final report digital copy.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

g. Mobilization of personnel and equipment to and from site (Use Mobilization pay item).
h. Sample collection (Use Sample Collection pay item).
i. Well Gauging (Use Well Gauging pay item).
j. Well installation (Use Well Installation pay item).
k. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
l. Securing property Access Agreements (Use Off-Site Property Access Agreement pay item).

m. Reports (Use Reports pay item).

2-1. Site Reconnaissance/Field Measurement Visit: [Per Visit]. This pay item is to collect basic site information necessary to develop a detailed scope of work for site assessment, including the layout of the site and topography, structures, storage systems, existing compliance or monitoring wells, utility lines, access logistics, traffic patterns, adjacent property use, potential contaminant sources, measure field points, including but not limited to building corners, manholes, and the top-of-casing elevations for previously installed wells, to a precision of 0.01-feet vertical relative to a common datum or benchmark within 1,000 feet. Gauging of existing monitoring wells is typically conducted concurrent with this visit.

2-2. Receptor Survey and Exposure Pathway Identification: [Per Survey]. This pay item is to identify potential receptors and exposure pathways for site risk determination. The survey will include a water well records search to identify all recorded water wells within a 0.5-mile radius and ordinances or other circumstances that prevent or influence future water wells. The survey will also include a records search including a DEP file review and a 500-foot field receptor survey performed by a qualified Technical Specialist to identify other receptors and exposure pathways, including unrecorded water wells, surface water bodies, underground utilities, buildings and confined spaces, sensitive or protected habitats, off-source site property impacts, current land use and zoning information and other potential receptor risk factors. Lastly, this pay item does not include, but does require a specific report, including photographic documentation using the July 1, 2013 DEP Draft Receptor Survey and Exposure Pathway Identification Form and required attachments. The report may be submitted either as a stand-alone report or as an additional component of another report such as the Receptor and Exposure Pathway or Site Assessment Report. See Reports pay item for associated report.

2-3. Professional Land Survey: [Reimbursable]. To be performed by Florida licensed professional land surveyor. Includes survey plat, field notes showing site boundaries and easements, legal description, and metes and bounds description. Digital CAD data and Adobe AcrobatTM PDF file of the plat shall be submitted electronically as an e-mail attachment. Actual PLS invoice required.

2-4. Contractor Oversight for Non-Price Schedule Activities: [Per Day]. This pay item represents one 10 hour day of Contractor Oversight of field activities not covered by the fixed cost schedule and is to be prorated to the nearest 1/10 day (1 hour) based on actual time spent on-site (e.g. 6 hours = 0.6 days and 12 hours = 1.2 days).

3. **MOBILIZATION:** The following pay items are for transportation of all personnel and equipment to and from the site associated with activities included in the price schedule, unless mobilization is specifically included in a pay item (i.e. non-pilot testing remedial action packaged scopes). Mobilization for procured goods and services (vendors and subcontractors)

not covered by the fixed price schedule should be included in the Reimbursable vendor and subcontractor costs. Mobilization is generally limited to once per field event, but for long term projects may be allowed for work crews not more frequently than once per week (7 days). The Mobilization distance is determined from the closest office to the site at the time of acceptance of the scope of work.

Unless otherwise specified, the following pay items **INCLUDE**:

a. Field personnel and equipment operators.
b. Fuel, oil, maintenance and repairs.
c. Road/bridge tolls and fees.
d. All other costs associated with operating a vehicle/trailer and mobilizing to and from site,
e. Drilling mobilization (DPT Rig, Drill Rig, LDA Rig) includes use of Light Duty Vehicle, Heavy Duty/Stakebed Truck and Work Trailers for the drilling subcontractors. No charge for storage unit.

3-1. Mobilization, Light Duty Vehicle (car or 1/2 ton truck) - < 100 miles each way: [Per Round Trip].

3-2. Mobilization, Light Duty Vehicle (car or 1/2 ton truck) - > 100 miles each way: [Per Round Trip].

3-3. Heavy Duty/Stakebed Truck (3/4 ton +) - < 100 miles each way: [Per Round Trip].

3-4. Heavy Duty/Stakebed Truck (3/4 ton +) - > 100 miles each way: [Per Round Trip].

3-5. Work Trailer - < 100 miles each way: [Per Round Trip].

3-6. Work Trailer - > 100 miles each way: [Per Round Trip].

3-7. DPT Rig Mobilization - < 100 miles each way: [Per Round Trip]. Replaced by 3-7.a.

3-7.a. DPT Rig and Support Vehicles Mobilization - < 100 miles each way: [Per Round Trip].

3-8. DPT Rig Mobilization - > 100 miles each way: [Per Round Trip]. Replaced by 38.a.

3-8.a. DPT Rig and Support Vehicles Mobilization - > 100 miles each way: [Per Round Trip].

3-9. Drill Rig Mobilization - < 100 miles each way: [Per Round Trip]. Replaced by 39.a.

3-9.a. Drill Rig and Support Vehicles Mobilization (hollow stem auger, mud rotary or sonic) - < 100 miles each way: [Per Round Trip].

3-10. Drill Rig Mobilization - > 100 miles each way: [Per Round Trip]. Replaced by 310.a.

3-10.a. Drill Rig and Support Vehicles Mobilization (hollow stem auger, mud rotary or sonic) - > 100 miles each way: [Per Round Trip].

3-11. Excavator Mobilization - < 100 miles each way: [Per Round Trip].

3-12. Excavator Mobilization - > 100 miles each way: [Per Round Trip].

3-13. LDA Rig Mobilization - < 100 miles each way: [Per Round Trip]. Replaced by 313.a.

3-13.a. LDA Rig and Support Vehicles Mobilization - < 100 miles each way: [Per Round Trip].

3-14. LDA Rig Mobilization - > 100 miles each way: [Per Round Trip]. Replaced by 314.a.

3-14.a. LDA Rig and Support Vehicles Mobilization - > 100 miles each way: [Per Round Trip].

3-15. Loader/Backhoe Mobilization - < 100 miles each way: [Per Round Trip].

3-16. Loader/Backhoe Mobilization - > 100 miles each way: [Per Round Trip].

3-17. Mini Excavator/Loader (BobcatTM) Mobilization - < 100 miles each way: [Per Round Trip].

3-18. Mini Excavator/Loader (BobcatTM) Mobilization - > 100 miles each way: [Per Round Trip].

3-19. Drum Compactor Mobilization - < 100 miles each way: [Per Round Trip]. The drum compactor for this pay item is heavy equipment used during earth work typically for compaction after excavation.

3-20. Drum Compactor Mobilization - > 100 miles each way: [Per Round Trip]. The drum compactor for this pay item is heavy equipment used during earth work typically for compaction after excavation.

4. **TRAVEL COST:** This pay item is for personnel, including subcontractors, traveling and working away from their home office for more than one consecutive day in association with activities included in the price schedule and will be paid at the current State Per Diem rate prorated in quarter day increments (6 hrs) within each 24 hour day under travel status pursuant to Section 112.061, F.S. Per Diem associated with procured services

(subcontractors) not covered by the fixed price schedule should be included in the Reimbursable subcontractor costs.

4-1.a. Per Diem – For travel > 1 Consecutive day (prorated in quarter day increments): [Per Person, Per Day].

4-1.b. Meals, Lodging and Transportation – For Contractor travel for specific meetings or legal proceedings required by Department, hotel and meals may be paid in accordance with Section 112.061. F.S. [Reimbursable]. These are scoped only for the specific meetings or proceedings and is not scoped for normal cleanup activities.

5. **DRILLING AND BORING:** The following pay items will be used for drilling, logging, sampling and screening of soil samples with an OVA. Drilling methodology and ancillary equipment shall be appropriate for site-specific conditions.

NOTE (1): When wells are exempt from Water Management District permit fees and are permitted by the DEP technical approval order, permit fees are not required and will not be reimbursable under this contract.

NOTE (2): The total depth of each individual monitoring well should be used to determine the depth interval for the drilling pay item (<50 feet, 50 to 100 feet, or >100 feet) for all well footage. For example, a 60 foot deep well should use the 50 to 100 feet unit rate for all well footage.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Labor costs for a State of Florida licensed water well contractor.
c. Acquisition of all required permits, excluding actual permit fee (If applicable, see Notes above).Marking well/boring locations and hand excavation to a minimum of 4 feet bls for utility clearance prior to drill rig usage.
d. Concrete coring, if required.
e. Collection and field screening of samples of the soil column conducted by headspace techniques with a properly calibrated Organic Vapor Analyzer and/or collection of samples for lab analyses (per PCS-004) appropriate for the contaminants at the site.
f. Cuttings retrieved at the surface shall be continuously examined to develop lithologic logs that include screening data.
g. Grout sealing boreholes that are not converted into a well.
h. Containers other than disposal drums for storage of cuttings, drilling fluids, waste, and wastewater.
i. Preparation and submittal of soil-boring logs.

j. For Cone Penetrometer Test (CPT) and Membrane Interface Probe (MIP), a brief narrative/summary report documenting the field activities and a complete copy of all print-out records of test readings (real-time data).

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

k. Field oversight and soil-boring logging by a Florida registered P.G. (Use negotiated costs). Actual permit fees (If applicable, see Notes above, use Reimbursable pay item).
l. Soil sampling at specified intervals for specified borings (Use appropriate technology cost Pay Item, i.e., split spoon, DPT cores or sonic cores).
m. Well installation (Use Well Installation pay item).
n. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
o. Reporting (Use Reports pay item).
p. Securing property Access Agreements (Use Off-Site Property Access Agreement pay item).
q. Drums for disposal of waste (included in per drum disposal pay items).

5-1.a. Split Spoon Sampling – 2 foot (during boring): [Per Spoon]. ***Replaced by 5-1.a.1 through 5-1.a.3.***

5-1.a.1. Split Spoon Sampling – 2 foot (during boring) < 50 feet: [Per Spoon].

5-1.a.2. Split Spoon Sampling – 2 foot (during boring) 50 to 100 feet: [Per Spoon]

5-1.a.3. Split Spoon Sampling – 2 foot (during boring) > 100 feet: [Per Spoon]

5-1.b. Sonic Core Sampling – 5 or 10 foot (during boring): [Per Core].

5-1.c. DPT Core Sampling – 4 or 5 foot (during boring): [Per Core]. ***Replaced by 5-3.a.***

5-2. Hand Auger Boring < 10 foot total depth: [Per Boring].

5-3. Direct Push Boring: [Per Foot]. ***Replaced by 5-3.a.***

5-3.a. Direct Push Technology (DPT) Rig and Equipment: [Full Day]. (NOTE: A full day is defined here as 10 hours.) It is intended that the number of days included in a scope will be adequate for the associated work to be performed. This item will not be prorated.

5-4. Direct Push Boring with Cone Penetrometer Test (CPT) Probe: [Per Foot]. ***Removed from Contract.***

5-5. Direct Push Boring with Membrane Interface Probe (MIP): [Per Foot]. Equipped with PID and ECD. ***Replaced by 5-5.a.***

5-5.a. DPT Membrane Interface Probe (MIP) Equipped with PID and ECD (Add-on Cost to DPT Base Rate): [Full Day]. Refer to Item 5-3.a for a definition of Full Day.

5-6. HSA or MR Boring < 6 inch diameter; < 50 foot total depth: [Per Foot].

5-7. HSA or MR Boring ≤ 6 inch diameter; 50 to 100 foot total depth: [Per Foot].

5-8. HSA or MR Boring ≤ 6 inch diameter; > 100 foot total depth: [Per Foot].

5-9. HSA or MR Boring > 6 inch to 10 inches diameter; < 50 foot total depth: [Per Foot].

5-10. HSA or MR Boring > 6 inch to 10 inches diameter; 50 to 100 foot total depth: [Per Foot].

5-11. HSA or MR Boring > 6 inch to 10 inches diameter; > 100 foot total depth: [Per Foot].

5-12. HSA or MR Boring > 10 to 14 inch diameter; < 50 foot total depth: [Per Foot].

5-13. HSA or MR Boring > 10 to 14 inch diameter; 50 to 100 foot total depth: [Per Foot].

5-14. HSA or MR Boring > 10 to 14 inch diameter; > 100 foot total depth: [Per Foot].

5-15. Sonic Boring ≤ 6 inch diameter; < 50 foot total depth: [Per Foot].

5-16. Sonic Boring ≤ 6 inch diameter; 50 to 100 foot total depth: [Per Foot].

5-17. Sonic Boring ≤ 6 inch diameter; > 100 foot total depth: [Per Foot].

5-18. Sonic Boring > 6 inch to 10 inches diameter; < 50 foot total depth: [Per Foot].

5-19. Sonic Boring > 6 inch to 10 inches diameter; 50 to 100 foot total depth: [Per Foot].

5-20. Sonic Boring > 6 inch to 10 inches diameter; > 100 foot total depth: [Per Foot].

5-21. Sonic Boring > 10 to 14 inch diameter; < 50 foot total depth: [Per Foot].

5-22. Sonic Boring > 10 to 14 inch diameter; 50 to 100 foot total depth: [Per Foot].

5-23. Sonic Boring > 10 to 14 inch diameter; > 100 foot total depth: [Per Foot].

6. **WELL INSTALLATION:** The following pay items will be used to CONVERT a soil boring into a well. These pay item costs do NOT include the cost of drilling of the

borehole which is covered under the Drilling and Boring pay items. All wells will be authorized by the DEP and shall be constructed in accordance with the Petroleum Restoration Program procedure PCS-006, Design, Installation, and Placement of Monitoring Wells and other applicable guidance.

NOTE: When wells are exempt from Water Management District permit fees and are permitted by the DEP technical approval order, permit fees are not required and will not be reimbursable under this contract.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Labor costs for a State of Florida licensed water well contractor.
c. Acquisition of all required permits, excluding actual permit fee (If applicable, see Note above).
d. Conversion of boring into a well of the specified diameter using Schedule 40 PVC screen and riser/casing. Well screen up to 20 feet.
e. Proper installation and completion at-grade of well, including end cap, annular seal (gravel pack, bentonite, grout), locking cap, manhole, well pad and any other materials required.
f. Proper development of the well.
g. Field measurement of top-of-casing elevation to a precision of 0.01-feet vertical relative to a common datum or benchmark within 1,000 feet.
h. Preparation and submittal of well construction and development logs.
i. Notifications and reports required by federal, state or local entities, including distribution of required documentation.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

j. Field oversight by a Florida registered P.G. (If needed in addition to the
k. qualified staff and driller already in the field performing the work. It must be demonstrated that there is a unique and site-specific reason why a P.G. is required for field oversight and why the qualified field staff would need the additional field oversight assistance. Use negotiated costs).
l. Actual permit fees (If applicable, see Note above, use Reimbursable pay item).
m. Drilling of borehole (Use Drilling and Boring pay item).
n. Installation of Well Vault, if justified (Use Well Vault pay item).
o. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
p. DEP Reporting (Use Reports pay item).

6-1. <u>Well Installation – 1 inch diameter:</u> [Per Foot].

6-2. Well Installation – 2 inch diameter: [Per Foot]. ***Replaced by 6-2.a and 6-2.b.***

6-2.a. Well Installation – 2 inch diameter (Vertical): [Per Foot].

6-2.b. Well Installation – 2 inch diameter (Horizontal, by trenching, not directional drilling): [Per Foot].

6-3. Well Installation – 4 inch diameter: [Per Foot]. ***Replaced by 6-3.a and 6-3.b.***

6-3.a. Well Installation – 4 inch diameter (Vertical): [Per Foot].

6-3.b. Well Installation – 4 inch diameter (Horizontal, by trenching, not directional drilling): [Per Foot].

6-4. Well Installation – 6 inch diameter: [Per Foot].

6-5. Surface Casing – 6 inch diameter: [Per Foot].

6-6. Surface Casing – 8 inch diameter: [Per Foot].

6-7. Surface Casing – 10 inch diameter: [Per Foot].

6-8. Surface Casing – 12 inch diameter: [Per Foot].

6-9.a. Additional Well Screen > 20 feet – 1 inch diameter: [Per Foot].

6-9.b. Additional Well Screen > 20 feet – 2 inch diameter: [Per Foot].

6-9.c. Additional Well Screen > 20 feet – 4inch diameter: [Per Foot].

6-9.d. Additional Well Screen > 20 feet – 6 inch diameter: [Per Foot].

6-10. Above Grade Well Completion: [Per Well]. This pay item includes all equipment, material, and labor for above-grade well completions up to 3.5 feet above ground and at least 2 feet above potential flood level, including protective steel casing, locking cover, and three protective bollards placed around the completion.

6-11. Installation of Well Vault – 2 x 2 x 2 foot: [Per Vault]. This pay item includes all equipment, material, and labor to excavate and install a well vault 2 foot by 2 foot by 2 foot in size, with at least 2 inches of 2500 psi concrete for vault walls and floor, and a water-resistant traffic rated cover plate.

6-12. Installation of Well Vault – 4 x 4 x 2 foot: [Per Vault]. This pay item includes all equipment, material, and labor to excavate and install a well vault 4 foot by 4 foot by 2 foot in size, with at least 2 inches of 2500 psi concrete for vault walls and floor, and a water-resistant traffic rated cover plate.

6-13. Well Redevelopment: [Per Well]. This pay item includes all equipment, material, and labor to redevelop a well.

6-14. Removal and Reinstallation of 8-inch Manhole and well pad: [Per Well]. This pay item is for use when a well pad/manhole has been damaged or destroyed.

6-15. Removal and Reinstallation of 12-inch Manhole and well pad: [Per Well]. This pay item is for use when a well pad/manhole has been damaged or destroyed.

7. **WELL ABANDONMENT:** The following pay items are to grout and abandon wells. All wells shall be abandoned in accordance with the BPSS procedure PCS-006, Design, Installation, and Placement of Monitoring Wells, DEP Rule 62532.500(4), F.A.C., and Water Management District permit requirements.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Labor costs for a State of Florida licensed water well contractor.
c. Field oversight by a qualified Field Technician.
d. Removal and disposal of well casing and concrete pad.
e. Grout sealing of the well bore.
f. Removal and disposal of well vault with backfill and compaction of void.
g. Resurface area to match original material (e.g. pavement, concrete, sod, etc.).
h. Completion and submittal of all necessary paperwork and notification required by well permit, including the State of Florida Well Completion Report.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

i. Well Abandonment/Site Restoration Report (Use Reports pay item).

7-1. Grout and Abandon Well, 1 to 2 inch diameter: [Per Foot].

7-2. Grout and Abandon Well, > 2 to 4 inch diameter: [Per Foot].

7-3. Grout and Abandon Well > 4 to 6 inch diameter: [Per Foot].

7-4. Grout and Abandon Well > 6 inch diameter: [Per Foot].

7-5. Removal of Well Vault – 2 x 2 x 2 foot: [Per Vault].

7-6. Removal of Well Vault – 4 x 4 x 2 foot: [Per Vault].

7-7. Removal of Well Pad and Manhole: [Per Well].

8. **SAMPLE COLLECTION AND FIELD TESTING:** The following pay items are for collection of samples and specified field testing. Groundwater sampling shall be in accordance with DEP Quality Assurance Groundwater Sampling Standard Operating Procedures (DEP-SOP-001/01, FS 2200 Groundwater Sampling) referenced in the Quality Assurance Rule, Chapter 62-160, F.A.C., and BPSS Procedure PCS-005, Groundwater Sampling Procedures Variances and Clarifications for Bureau of Petroleum Storage System Sites. Soil sampling shall be in accordance with DEP Quality Assurance General Sampling Procedures (DEP-SOP-001/01 FS 1000) referenced in the Quality Assurance Rule, Chapter 62-160, F.A.C., and BPSS Procedure PCS-004, Soil Sampling.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Collection and preparation of samples by a qualified Field Technician for specified field test or shipment to laboratory for analysis.
c. Shipping of samples to laboratory.
d. Field Testing per specified pay item.
e. Storage of recovered product prior to disposal.
f. Field notes, chains-of-custody, and other appropriate sampling documentation.
g. Collection of a sample for multiple laboratory and/or field analyses, split samples, and QA/QC samples.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

h. Laboratory analysis (Use Laboratory Analysis pay item).
i. Product Disposal (Use Debris, Waste and Product Removal and Disposal pay item).

8-1. Monitoring Well Sampling with Water Level, ≤ 100 foot depth: [Per Well].

8-2. Monitoring Well Sampling with Water Level, > 100 foot depth: [Per Well].

8-3. Domestic Water Well Sampling: [Per Well].

8-4. Other Water Sampling: [Per Sample]. Surface water, tap water, etc.

8-5. Free Product Sample Collection: [Per Sample].

8-6. Soil/Sediment Sample Collection: [Per Sample].

8-7. Water Level/Free Product Gauging: [Per Well]. Includes depth to water, depth to product, and product thickness. Measurements shall be made to the nearest 0.01 foot.

8-8. Free Product Gauging and Bailing: [Per Well]. Includes depth to product and product thickness. Measurements shall be made to the nearest 0.01 foot.

8-9 Vapor/Ambient Air Sample Collection – Passive Dosimeter, Sorbent Tube, TedlarTM Bag: [Per Sample].

8-10 Vapor/Ambient Air Sample Collection – SUMMATM Canister (or equivalent): [Per Sample].

8-11. Electronic Data Deliverables (EDD): [Per Sampling Event]. Includes creating the field EDD, run data review in AdaPT for the lab EDD, and export the field and lab EDDs to create text file for submittal to the Department. This is in addition to the already required Lab EDD and Error Log. Please review the "AdaPT DWM User Guide" for step by step instructions and requirements for PRP AdaPT submittals.

8-12. Survey Latitude/Longitude of Existing Monitor Wells: [Per Well]. To be performed in conjunction with planned field activities, includes surveying latitude and longitude of existing monitor wells. This information will be added to the Existing Monitor Well Location Form located on the PRP Procedures & Guidance Documents webpage and submitted electronically (via email) in its native format and in conjunction with the planned deliverable. This item is a one-time cost per well. Measurements accuracy and precision must be based on Locational Data Standard (Rank 3) also located on the PRP Procedures & Guidance Documents webpage. This does not require a PLS survey, it does require a DGPS (differentially corrected course/acquisition code phase GPS).

8-13. Survey Latitude/Longitude of New Monitor Wells: [Per Well]. To be performed in conjunction with planned field activities, includes surveying latitude and longitude of newly-installed monitor wells. This information will be added to the New Well Construction Log located on the PRP Procedures & Guidance Documents webpage and submitted electronically (via email) in its native format and in conjunction with the planned deliverable. This item is a one-time cost per well. Measurements accuracy and precision must be based on Locational Data Standard (Rank 3) also located on the PRP

Procedures & Guidance Documents webpage. This does not require a PLS survey, it does require a DGPS (differentially corrected course/acquisition code phase GPS).

8-14. Encore (25 gram) for SPLP Soil Sample Collection: [Per Encore]. The cost will include the 25 gram Encore samples submitted to the laboratory for SPLP testing and the 25 gram Encore samples collected in the field but not submitted to the laboratory for testing (discarded).

9. **LABORATORY ANALYSIS:** The following pay items are to provide laboratory analyses performed in accordance with the requirements set forth in Chapter 62160, Florida Administrative Code (F.A.C.). In addition all laboratories must hold certification from the Department of Health (DOH) Environmental Laboratory Certification Program (ELCP) using standards established by the National Environmental Laboratory Accreditation Conference (NELAP) as specified in Ch. 64E, F.A.C., for each matrix/test method/analyte combination. Certain exceptions apply and can be found in the February 17, 2007 Guidance Memo BPSS Enforcement of Laboratory NELAP Certification Requirements.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Labor costs for qualified laboratory personnel to perform analysis.
c. Up to fourteen (14) day turnaround time (begins when laboratory receives samples).
d. All QA/QC protocols.
e. Cost for extraction.
f. Laboratory reports.
g. Contractor data review.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

h. Sample collection (Use Sample Collection pay item).
i. Technical reports in which lab data is addressed (Use Reports pay item)

9.A. **SOIL/SEDIMENT ANALYSIS:**

9-1. Soil, Used Oil/Unknown Product Group-Table D of Ch. 62-780, F.A.C., except for non-Priority Pollutant Organics (Multiple Methods): [Per Sample].

9-2. Soil, BTEX + MTBE (EPA 8021 or EPA 8260): [Per Sample].

9-3. Soil, Volatile Organic Halocarbons (EPA 8021 or EPA 8260): [Per Sample].

9-4. Soil, BTEX + MTBE + VOHs (EPA 8021 or EPA 8260): [Per Sample].

9-5. Soil, Polycyclic Aromatic Hydrocarbons (EPA 8270 or EPA 8310): [Per Sample].

9-6. Soil, Priority Pollutant Volatile Organics (EPA 8260): [Per Sample].

9-7. Soil, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables (EPA 8270 list [e.g., EPA 8081/8082 + EPA 8270]): [Per Sample].

9-8. Soil, Total Recoverable Petroleum Hydrocarbons (FL-PRO): [Per Sample].

9-8.a. Soil, TRPH Fractionation (MADEP-EPH/VPH Method or TPHCWG Direct Method): [Per Sample].

9-9. Soil, PCBs [or Aroclors] (EPA 8082): [Per Sample].

9-10. Soil, 8 RCRA Metals (EPA 6010 or EPA 6020 [Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver] and EPA 6020 or EPA 7471 [Mercury]): [Per Sample].

9-11. Soil, Arsenic (EPA 6010 or EPA 6020): [Per Sample].

9-12. Soil, Cadmium (EPA 6010 or EPA 6020): [Per Sample].

9-13. Soil, Chromium (EPA 6010 or EPA 6020): [Per Sample].

9-14. Soil, Lead (EPA 6010 or EPA 6020): [Per Sample].

9-15. Soil, Toxicity Characteristic Leaching Procedure-Extraction Only (EPA 1311): [Per Sample].

9-16. Soil, Synthetic Precipitation Leaching Procedure-Extraction Only (EPA1312): [Per Sample].

9-17. Soil, Organic Carbon, Total (EPA 9060 or Walkey-Black): [Per Sample].

9-18. Soil, Dry Bulk Density (ASTM D1556-07, ASTM D2167-08, ASTM D2922-01, -04, -04e, -96e1 or ASTM D2937-10): [Per Sample].

9-19. Soil, Moisture Content (ASTM D2216-10): [Per Sample].

9-20. Soil, Texture (See Gee + Bauder [1966]): [Per Sample].

9-21. Soil, GC/MS Full Scan, Alkanes, Isoalkanes, Cycloalkanes, Aromatics, Bicyclane, Sterane, and Terpane Biomarkers (ASTM D5739 High Resolution GC/MS): [Per Sample].

9-22. Soil, Gasoline Hydrocarbon Composition, Gasoline PIANO (paraffins, isoparaffins, aromatics, naphthenes and olefins) (EPA 8260Mod, High Resolution GC/MS): [Per Sample].

9-23. Soil, 5 Fuel Oxygenates, MTBE, DIPE, TAME, ETBE and TBA (EPA 8260Mod, High Resolution GC/MS): [Per Sample].

9-24. Soil, C10-C40 Alkane Fingerprint, N-Alkanes and Isoalkanes (ASTM D3328 GC/MS): [Per Sample].

9.B. WATER ANALYSIS:

9-25. Water, Gasoline/Kerosene Analytical Group-Table C of Ch. 62-780, F.A.C. (Multiple Methods): [Per Sample].

9-26. Water, Used Oil/Unknown Product Group-Table C of Ch. 62-780, F.A.C., except for non-Priority Pollutant Organics (Multiple Methods): [Per Sample].

9-27. Water, BTEX + MTBE (EPA 602, EPA 624, EPA 8021 or EPA 8260): [Per Sample].

9-28. Water, Volatile Organic Halocarbons, except EDB (EPA 8021 or EPA 8260): [Per Sample].

9-29. Water, BTEX + MTBE + VOHs (EPA 601/602, EPA 624, EPA 6021 or EPA 8260): [Per Sample].

9-30. Water, Polycyclic Aromatic Hydrocarbons, including 1-methylnaphthalene + 2-methylnaphthalene (EPA 610 [HPLC], EPA 625, EPA 8270 or EPA 8310): [Per Sample].

9-31. Water, EDB [1,2-dibromoethane or ethylene dibromide] (EPA 504.1 or EPA 8011): [Per Sample].

9-31a. Water, EDB [1,2-dibromoethane or ethylene dibromide] (EPA 8260 SIM): [Per Sample].

9-32. Water, Priority Pollutant Volatile Organics [for NPDES purposes only] (EPA 624): [Per Sample].

9-33. Water, Priority Pollutant Volatile Organics (EPA 8260): [Per Sample].

9-34. Water, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables [for NPDES purposes only] (EPA 625 list [e.g., EPA 608 + EPA 625]): [Per Sample].

9-35. Water, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables (EPA 8270 list [e.g., EPA 8081/8082 + EPA 8270 or EPA 608 + EPA 8270): [Per Sample].

9-36. Water, Total Recoverable Petroleum Hydrocarbons (FL-PRO): [Per Sample].

9-37. Water, PCBs [or Aroclors] (EPA 608 or EPA 8082): [Per Sample].

9-38. Water, Arsenic, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020): [Per Sample].

9-39. Water, Cadmium, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020): [Per Sample].

9-40. Water, Chromium, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020): [Per Sample].

9-41. Water, Lead, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020): [Per Sample].

9-41.a. Water, Dissolved Lead (includes filter appropriate to sample method - EPA 200.7, 200.9, 6010B, or 7380): [Per Sample].

9-42. Water, Mercury, Total (EPA 245.1, EPA 6020 or EPA 7470): [Per Sample].

9-43. Water, Calcium, Total (EPA 200.7, EPA 6010 or EPA 6020): [Per Sample].

9-44. Water, Iron, Total (EPA 200.7, EPA 6010 or EPA 6020): [Per Sample].

9-44.a. Water, Dissolved Iron (includes filter appropriate to sample method - EPA 200.7, 200.9, 6010B, or 7380): [Per Sample].

9-45. Water, Magnesium, Total (EPA 200.7, EPA 6010 or EPA 6020): [Per Sample].

9-46. Water, Manganese, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020): [Per Sample].

9-47. Water, Potassium, Total (EPA 200.7, EPA 6010 or EPA 6020): [Per Sample].

9-48. Water, Sodium, Total (EPA 200.7, EPA 6010 or EPA 6020): [Per Sample].

9-49. Water, Alkalinity [as CaCO3] (EPA 310.2 or SM 2320 B): [Per Sample].

9-50. Water, Ammonia [as N] (EPA 350.1, SM 4500-NH3 C, SM 4500-NH3 D, SM 4500-NH3 G or SM 4500-NH3 H): [Per Sample].

9-51. Water, Chloride (EPA 300.0, EPA 9056, EPA 9251, EPA 9053, SM 4500CI B, SM 4500CI C or SM 4500CI E): [Per Sample].

9-52. Water, Hardness, Total [as CaCO3] (SM 2340 B or SM 2340 C): [Per Sample].

9-53. Water, Nitrate [as N] (EPA 300.0 or EPA 353.2): [Per Sample].

9-54. Water, Nitrate-Nitrite [as N] (EPA 300.0, EPA 353.2, SM 4500-NO3 E or SM 4500-NO3 F): [Per Sample].

9-55. Water, Nitrite [as N] (EPA 300.0, EPA 300.1, SM 4500-NO2 B or SM 4500-NO3 F): [Per Sample].

9-56. Water, Organic Carbon, Total (SM 5310 B, SM 5310 C or EPA 9060): [Per Sample].

9-57. Water, Orthophosphate [as P] (EPA 300.0, EPA 300.1, EPA 365.1, EPA 365.3, EPA 9056, SM 4500-PE or SM 4500-PF): [Per Sample].

9-58. Water, Residue-filterable [Total Dissolved Solids] (SM 2540 C): [Per Sample].

9-59. Water, Residue-non-filterable [Total Suspended Solids] (SM 2540 D): [Per Sample].

9-60. Water, Sulfate (ASTM D516-02, ASTM D516-90, EPA 300.0, EPA 300.1, EPA 375.2, EPA 9038, EPA 9056 or SM 4500-SO4 C): [Per Sample].

9-61. Water, Heterotrophic Plate Count (SM 9215 B): [Per Sample].

9-62. Water, Acute Bioassay-96 Hour, Freshwater, Vertebrate/Invertebrate [Vertebrate: Pimephales promelas or Cyprinella leedsi/Invertebrate: Ceriodaphnia dubia] (EPA 2000.0/2002.0): [Per Sample].

9-63. Water, Acute Bioassay-96 Hour, Estuarine + Marine, Vertebrate/Invertebrate [Vertebrate: Menidia beryllina, Meridia menidia or Menida peninsulae/Invertebrate: Mysidopsis bahia] (EPA 2006.0/2007.0): [Per Sample].

9-64. Water, GC/MS Full Scan, Alkanes, Isoalkanes, Cycloalkanes, Aromatics, Bicyclane, Sterane, and Terpane Biomarkers (ASTM D5739 High Resolution GC/MS): [Per sample].

9-65. Water, Gasoline Hydrocarbon Composition, Gasoline PIANO [paraffins, isoparaffins, aromatics, naphthenes and olefins] (EPA 8260Mod, High Resolution GC/MS): [Per sample].

9-66. Water, 5 Fuel Oxygenates, MTBE, DIPE, TAME, ETBE and TBA (EPA 8260Mod, High Resolution GC/MS): [Per sample].

9-67. Water, C10-C40 Alkane Fingerprint, N-Alkanes and Isoalkanes (ASTM D3328GC/MS): [Per sample].

9-78. Water, BTEX/MTBE + Naphthalene (EPA 8260): [Per Sample].

9-79. Water, EDC [1,2-dichloroethane] (EPA Method 8021 or 8260): [Per Sample].

9-80. Water, Methane (EPA SOP RSK-175): [Per Sample].

9.C. **AIR ANALYSIS:**

9-68. Air, Total Petroleum Hydrocarbons (Method 18 or TO-3): [Per Sample].

9-69. Air, Volatile Organic Aromatics (EPA Method TO-15): [Per Sample].

9-70. Air, Polycyclic Aromatic Hydrocarbons-Semi-Volatiles (EPA Method TO-13): [Per Sample].

9-71. Air, Volatile Organic Compounds (EPA Method TO-17): [Per Sample].

9.D. **PRODUCT ANALYSIS:**

9-72. Product, C3-C44 Hydrocarbon Fingerprint, Gasoline PIANO [paraffins, isoparaffins, aromatics, naphthenes and olefins], alkanes and isoalkanes (ASTM D3328 High Resolution GC/FID): [Per sample].

9-73. Product, GC/MS Full Scan, alkanes, isoalkanes, cycloalkanes, aromatics, bicyclane, sterane, and terpane biomarkers (ASTM D5739 High Resolution GC/MS): [Per sample].

9.E. **OTHER ANALYSIS:**

9-74. Other Laboratory Analysis, Not Otherwise Specified: [Reimbursable]. Justification must be provided at time of work assignment. ***Recommended for Removal***

9-75. Additional Laboratory Charge for 7 Day Turnaround: [Percent Surcharge]. Justification must be provided at time of work assignment. This is an additional charge (percentage) above the normal rate for expedited turnaround by the laboratory for an analysis.

9-76. Additional Laboratory Charge for 3 Day Turnaround: [Percent Surcharge]. Justification must be provided at time of work assignment. This is an additional charge (percentage) above the normal rate for expedited turnaround by the laboratory for an analysis.

9-77. Additional Laboratory Charge for 1 Day Turnaround: [Percent Surcharge]. Justification must be provided at time of work assignment. This is an additional charge (percentage) above the normal rate for expedited turnaround by the laboratory for an analysis.

10. **SOIL SOURCE REMOVAL RELATED:** The following pay items are used to dewater, excavate and/or remove soil/material, backfill and compact the excavation area. The scope of the soil source removal must be approved by the DEP Project Manager prior to initiating work.

NOTE (1): These pay items will not be used for tank removals and/or trenching (see Tank Removal and Trenching Pay Items).

NOTE (2): Contractor is responsible for correcting any issues associated with flowable fill, backfill, and compaction that may arise such as subsidence, cracking of concrete or pavement, etc., including mobilizations, personnel, material and equipment.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Acquisition of all required permits, excluding actual permit fee.
c. Field oversight by a qualified Engineer or Geologist.
d. Onsite temporary storage of soil/material (e.g., roll off box).
e. Small on-site storage tanks < 2,000 gallon capacity.
f. Sampling/testing of backfill and/or flowable fill per specification
g. Complying with OSHA safety requirements.
h. Temporary Security Fencing.
i. Safety Devices (barricades, lights, signs, concrete barriers, trench boxes and plates).
j. Stormwater/erosion control measures.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

k. Mobilization of Personnel and Equipment to and from site (Use Mobilization pay item).
l. Debris, waste and product removal and/or disposal (Use Debris, Waste and Product Removal and Disposal pay item).
m. Concrete and asphalt replacement (Use Resurfacing pay item).
n. Sample Collection of effluent or waste or for classification (Use Sample Collection pay item).
o. Laboratory analysis of effluent for waste for classification (Use Laboratory Analysis pay item).
p. Actual permit fees (Use Permit Fees [Reimbursable] pay item).
q. Large on-site holding tanks (Use Remedial Action Equipment - Use pay item).
r. On-Site Water Treatment (Use Remedial Action – Packaged Work Scopes pay item).
s. Tank Removal (Use Petroleum Storage Tank Removal and Disposal pay item).

10-1. Sheet Piling for < 20 feet deep excavation (per square foot): [Per Square Foot/Day]. This pay item is for installation of sheet piling to facilitate a 20 feet deep excavation and usage on a daily basis. ***Replaced by 10-1.a and 10-1.b.***

10-1.a. Sheet Piling Installation for < 20 feet deep excavation (per square foot): [Per Square Foot]. This pay item is for installation and removal of sheet piling to facilitate a 20 feet deep excavation. Square footage calculation includes entire length and width of sheet piling.

10-1.b. Sheet Piling Rental for < 20 feet deep excavation (per square foot): [Per Square Foot/Day]. This pay item is for rental of sheet piling to facilitate a 20 feet deep excavation and usage on a daily basis.

10-1.c. Sheet Piling Rental for < 20 feet deep excavation (per square foot): [Per Square Foot/Week]. This pay item is for rental of sheet piling to facilitate a 20 feet deep excavation and usage on a weekly basis.

10-1.d. Sheet Piling Rental for < 20 feet deep excavation (per square foot): [Per Square Foot/Month]. This pay item is for rental of sheet piling to facilitate a 20 feet deep excavation and usage on a monthly basis.

10-2. Sheet Piling for < 20 feet deep excavation (per square foot): [Per Square Foot/Week]. This pay item is for installation of sheet piling to facilitate a 20 feet deep excavation and usage on a weekly basis. ***Replaced by 10-1.a and 101.c.***

10-2.a. Sheet Piling Installation for > 20 feet deep excavation (per square foot): [Per Square Foot]. This pay item is for installation and removal of sheet piling to facilitate a greater than 20 feet deep excavation. Square footage calculation includes entire length and width of sheet piling.

10-2.b. Sheet Piling Rental for > 20 feet deep excavation (per square foot): [Per Square Foot/Day]. This pay item is for rental of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a daily basis.

10-2.c. Sheet Piling Rental for > 20 feet deep excavation (per square foot): [Per Square Foot/Week]. This pay item is for rental of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a weekly basis.

10-2.d. Sheet Piling Rental for > 20 feet deep excavation (per square foot): [Per Square Foot/Month]. This pay item is for rental of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a monthly basis.

10-3. Sheet Piling for < 20 feet deep excavation (per square foot): [Per Square Foot/Month]. This pay item is for installation of sheet piling to facilitate a 20feet deep excavation and usage on a monthly basis. ***Replaced by 10-1.a. and 10-1.d.***

10-4. Sheet Piling for > 20 feet deep excavation (per square foot): [Per Square Foot/Day]. This pay item is for installation of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a daily basis. ***Replaced by 10-2.a. and 10-2.b.***

10-5. Sheet Piling for > 20 feet deep excavation (per square foot): [Per Square Foot/Week]. This pay item is for installation of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a weekly basis. ***Replaced by 10-2.a. and 10-2.c.***

10-6. Sheet Piling for > 20 feet deep excavation (per square foot): [Per Square Foot/Month]. This pay item is for installation of sheet piling to facilitate a greater than 20 feet deep excavation and usage on a monthly basis. ***Replaced by 10-2.a and 10-2.d.***

10-7. Conventional Soil Excavation and Loading < 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a conventional excavation of up to 300 cubic yards.

10-8. Conventional Soil Excavation and Loading > 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a conventional excavation exceeding 300 cubic yards.

10-9. LDA Excavation and Loading Without Casing < 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a Large Diameter Auger (LDA) excavation of up to 300 cubic yards without the use of supportive casing.

10-10. LDA Excavation and Loading Without Casing > 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a LDA excavation exceeding 300 cubic yards without the use of supportive casing.

10-11.a. LDA Excavation and Loading With Surface Casing < 300 cubic yards: [Per Cubic Yard]. This pay item is used for excavation and loading of soils for a LDA excavation of up to 300 cubic yards with the use of supportive casing.

10-11.b. LDA Excavation and Loading With Driven Casing < 300 cubic yards: [Per Cubic Yard]. This pay item is used for excavation and loading of soils for a LDA excavation of up to 300 cubic yards with the use of supportive casing.

10-12.a. LDA Excavation and Loading With Surface Casing > 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a LDA excavation exceeding 300 cubic yards with the use of supportive casing.

10-12.b. LDA Excavation and Loading With Driven Casing > 300 cubic yards: [Per Cubic Yard]. This pay item is for excavation and loading of soils for a LDA excavation exceeding 300 cubic yards with the use of supportive casing.

10-13. Flowable Fill Concrete and Installation: [Per Cubic Yard]. This pay item is for flowable fill concrete material and installation. The flowable fill shall meet the strength requirements specified in the Remedial Action Plan. Includes costs for compressive strength testing.

10-14. Clean Backfill Material, Compaction and Testing < 300 cubic yards: [Per Cubic Yard]. This pay item includes the purchase, transportation, installation, compaction and compaction testing of backfill material for a conventional excavation of up to 300 cubic yards.

10-15. Clean Backfill Material, Compaction and Testing > 300 cubic yards: [Per Cubic Yard]. This pay item includes the purchase, transportation, installation, compaction and compaction testing of backfill material for a conventional excavation exceeding 300 cubic yards.

10-15.a. Clean Overburden Used As Backfill, Compaction and Testing ≤ 300 cubic yards: [Per Cubic Yard]. This pay item is for installation, compaction, and compaction testing of suitable backfill material reused at the site.

10-15.b. Clean Overburden Used As Backfill, Compaction and Testing > 300 cubic yards: [Per Cubic Yard]. This pay item is for installation, compaction, and compaction testing of suitable backfill material reused at the site.

10-16. Pea Gravel: [Per Ton]. This pay item includes the purchase, transportation and installation of pea gravel where such material is specified.

10-17. #57 Stone: [Per Ton]. This pay item includes the purchase, transportation and installation of #57 stone when such course aggregate material is specified.

10-18. Dewatering System, up to 12 well points: [Per Day]. This pay item is to install, operate, monitor and dismantle a dewatering system with up to 12 dewatering points capable of dewatering to a depth of 25 feet bls. Not to be used for single point dewatering using a trash pump or sump pump.

10-19. Additional Dewatering System Well Points (2): [Per Day]. This pay item is for adding two additional well points to the daily dewatering system pay item.

10-20. Dewatering System, up to 12 well points: [Per Week]. This pay item is to install, operate, monitor and dismantle a dewatering system with up to 12 dewatering points capable of dewatering to a depth of 25 feet bls. Not to be used for single point dewatering using a trash pump or sump pump.

10-21. Additional Dewatering System Well Points (2): [Per Week]. This pay item is for adding two additional well points to the weekly dewatering system pay item.

10-22. Dewatering System, up to 12 well points: [Per Month]. This pay item is to install, operate, monitor and dismantle a dewatering system with up to 12 dewatering points capable of dewatering to a depth of 25 feet bls. Not to be used for single point dewatering using a trash pump or sump pump.

10-23. Additional Dewatering System Well Points (2): [Per Month]. This pay item is for adding two additional well points to the monthly dewatering system pay item.

11. **PETROLEUM STORAGE TANK SYSTEM REMOVAL AND DISPOSAL:** The following pay items are for the emptying, cleaning, removal and disposal of petroleum storage tank systems of specified capacity by a certified Florida Petroleum Storage System

Specialty Contractor and are only allowed if tank removal is determined by the DEP to be integral to site rehabilitation.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Acquisition of all required permits, excluding actual permit fee.
c. Field oversight by a certified Florida Petroleum Storage System Specialty Contractor.
d. Emptying residual product, water and sludge from the storage tank.
e. Draining and removing or capping integral piping.
f. Transportation and proper disposal/recycling.
g. Completion of waste manifests.
h. Completion of required Storage Systems Closure forms and notices required by Ch. 62-761, F.A.C.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

i. Mobilization of Personnel and Equipment to and from site (Use Mobilization pay item).
j. Actual permit fees (Use Reimbursable pay item).
k. Sample Collection of waste or for classification (Use Sample Collection pay item).
l. Laboratory analysis of waste for classification (Use Laboratory Analysis pay item).
m. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).

11-1. Remove and Dispose Petroleum Storage Tank - ≤ 1,000 gal. capacity: [Per Tank]: This pay item includes evacuation of vapors within tank, removal and disposal of residual petroleum product, contact water and sludge, cleaning and dismantling of tank, draining and removal or capping of integral piping and dispenser, and removal and disposal of tank.

11-2. Remove and Dispose Petroleum Storage Tank - > 1,000 to 5,000 gal. capacity: [Per Tank]: This pay item includes evacuation of vapors within tank, removal and disposal of residual petroleum product, contact water and sludge, cleaning and dismantling of tank, draining and removal or capping of integral piping and dispenser, and removal and disposal of tank.

11-3. Remove and Dispose Petroleum Storage Tank - > 5,000 to 10,000 gal. capacity: [Per Tank]: This pay item includes evacuation of vapors within tank, removal and disposal of residual petroleum product, contact water and sludge, cleaning and dismantling of tank, draining and removal or capping of integral piping and dispenser, and removal and disposal of tank.

11-4. Remove and Dispose Petroleum Storage Tank - > 10,000 gal. capacity: [Per Tank]: This pay item includes evacuation of vapors within tank, removal and disposal of residual petroleum product, contact water and sludge, cleaning and dismantling of tank, draining and removal or capping of integral piping and dispenser, and removal and disposal of tank.

12. **DEBRIS, WASTE AND PRODUCT REMOVAL AND DISPOSAL:** The following pay items are for transporting, disposing, recycling, and treating of concrete asphalt and other debris, petroleum contaminated waste and petroleum product. It is the Contractor's responsibility to properly classify and dispose of waste at an appropriate, properly registered facility in accordance with federal and state regulations. Disposal/recycling should be accomplished as soon as laboratory analyses indicate which disposal/recycling facility is appropriate. Prior to disposal, the Contractor shall provide justification of landfill/facility selection and comparison to disposal versus treatment/reuse options to DEP. Selection of disposal using drums vs. bulk rates shall be determined by the best value to the State. Selection of a site-specific disposal method for clean soil requires pre-approval by the DEP Project Manager. The Contractor shall oversee waste loading and sign the manifest. The delivery ticket with the actual volume of material shall be used to document the quantity of wastes disposed.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Field oversight by a qualified Field Technician.
c. Drums and containers used for storage and/or transport.
d. Completion of waste manifests.
e. Labeling of drum(s) and container(s) – Labels shall identify 1) waste category and classification, 2) container contents, 3) site facility identification number, 4) contractor name and telephone number, and 5) dates of accumulation.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

f. Mobilization of personnel and equipment to and from site (Use Mobilization pay item)
g. Sample collection for waste classification (Use Sample Collection pay item)
h. Laboratory analysis for waste classification (Use Laboratory Analyses pay)

12-1. Removal and Loading of Asphalt and/or Concrete – up to 4 inch thickness: [Per Square Foot]. This pay item is to remove and load pre-existing asphalt and/or concrete up to 4 inch thickness.

12-2. Additional Removal/Loading Cost for Concrete - > 4 inch thickness: [Per Square Foot]. This pay item is for additional costs to remove and load concrete greater than 4 inch thickness with or without rebar reinforcement.

12-3. Load, Transport and Disposal/Recycle Clean Overburden: [Per Ton]. This pay item is for loading, transportation and disposal/recycling of clean overburden soil that cannot be re-used on-site.

12-4. Transport and Disposal of Clean Concrete: [Per Ton]. This pay item is for transportation and disposal/recycling of clean concrete debris (absent of other materials such as rebar, etc.).

12-5. Transport and Disposal of Mixed Debris: [Per Ton]. This pay item is for transportation and disposal of mixtures of concrete, asphalt, rebar and other construction debris.

12-6. Transport and Disposal of Petroleum Impacted Soil (includes drum): [Per Drum]. This pay item is for transportation and proper disposal of petroleum impacted soil at an appropriate, registered disposal facility and includes one 55-gallon capacity drum.

12-7. Transport Petroleum Impacted Soil (bulk) < 100 miles: [Per Ton]. This pay item is for transportation of impacted soil from the site to an appropriate, properly registered disposal facility within 100 miles.

12-8. Transport of Petroleum Impacted Soil (bulk) > 100 miles: [Per Ton]. This pay item is for transportation of impacted soil from the site to an appropriate, properly registered disposal facility more than 100 miles.

12-9. Disposal of Petroleum Impacted Soil at a Landfill (bulk) < 450 tons: [Per Ton]. This pay item is for proper disposal of petroleum impacted soil at a landfill facility meeting Ch. 62-713, F.A.C., permitting requirements.

12-10. Disposal of Petroleum Impacted Soil at a Landfill (bulk) > 450 tons: [Per Ton]. This pay item is for proper disposal of petroleum impacted soil at a landfill facility meeting Ch. 62-713, F.A.C., permitting requirements.

12-11. Disposal of Petroleum Impacted Soil at a Thermal Treatment Facility (bulk) < 450 tons: [Per Ton]. This pay item is for proper disposal of petroleum impacted soil at a thermal treatment facility meeting Ch. 62-713, F.A.C., permitting requirements.

12-12. Disposal of Petroleum Impacted Soil at a Thermal Treatment Facility (bulk) > 450 tons: [Per Ton]. This pay item is for proper disposal of petroleum impacted soil at a thermal treatment facility meeting Ch. 62-713, F.A.C., permitting requirements.

12-13. Transport and Disposal of Petroleum Contact Water (includes drum): [Per Drum]. This pay item is for transport and proper disposal of petroleum contact water at an appropriate, registered disposal facility and includes one 55-gallon capacity drum.

12-14. Transport and Disposal of Petroleum Contact Water (bulk): [Per Gallon]. This pay item is for transport and proper disposal of petroleum contact water at a permitted disposal facility or sewer system.

12-15. Transport and Disposal of Petroleum Product: [Per Drum]. This pay item is for transport and proper disposal/recycling of petroleum product at an appropriate, registered disposal/recycling facility and includes one 55-gallon capacity drum.

12-16. Transport and Disposal of Petroleum Product (bulk): [Per Gallon]. This pay item is for the transport and proper disposal/recycling of bulk petroleum product at an appropriate, registered disposal/recycling facility.

12 -17. Delivery, Pick Up and Rental of 20 Cubic Yard Roll-Off Container: [Per Week]. This pay item should be used when the cost for using drums exceeds the cost for using roll-offs or material is not suitable for drumming. Excludes transport and disposal, refer to pay items 12-7 through 12-12.

12 -18. Additional Rental of 20 Cubic Yard Roll-Off Container: [Per Week]. This pay item is used in addition to pay item 12-17 when additional weeks of rental are needed.

13. **RESURFACING:** The following pay items are for the replacement of site surface cover destroyed during cleanup related activities (asphalt, concrete, crushed lime rock, sod and seed).

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Field oversight by a qualified Field Specialist or Field Technician.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

c. Mobilization of personnel and equipment to and from site (Use Mobilization pay item).

13-1. Asphalt Paving – 2 inch thickness (includes sub-base): [Per Square Foot]. This pay item includes all costs associated with the installation of replacement asphalt of 2 inch thickness.

13-2. Asphalt Paving-additional 1 inch thickness: [Per Square Foot]. This pay item includes all costs associated with the installation of additional replacement asphalt of 1 inch thickness.

13-3. Concrete Paving – 4 inch thickness (includes sub-base): [Per Square Foot]. This pay item includes all costs associated with the installation of replacement concrete. The concrete will meet the strength/reinforcement requirements specified in the Remedial Action Plan. Includes costs for compression testing.

13-4. Concrete Paving – additional 1 inch thickness: [Per Square Foot]. This pay item includes all costs associated with the installation of additional replacement concrete of 1 inch thickness.

13-5. Crushed Lime Rock Cover – 2 inch thickness: [Per Square Foot]. This pay item includes all cost associated with the installation of crushed lime rock cover (not as sub base for pavement or concrete).

13-6. Grass – Sod: [Per Square Foot]. This pay item includes all costs associated with the installation of replacement grass sod material.

13-7. Grass – Seed and Mulch: [Per Square Foot]. This pay item includes all costs associated with grass seeding and mulching.

14. **IN-SITU INJECTION:** The following pay item is for in-situ injection using direct push borings in accordance with an approved remedial action plan.

NOTE: When wells are exempt from Water Management District permit fees and are permitted by the DEP technical approval order, permit fees are not required and will not be reimbursable under this contract.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Field oversight by a qualified Field Technician.
c. Direct push boring (if using DP option).
d. Acquisition of all required permits, excluding actual permit fee (If applicable, see Note above).
e. Injection material preparation and/or mixing.
f. Injection/application of material.

g. Grout sealing the boreholes (if using DP option).
h. Setup and dismantling the injection equipment.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

i. Mobilization of personnel and equipment to and from site (Use Mobilization pay item).
j. Actual permit fees (If applicable, see Note above, use Reimbursable pay item).
k. Material to be injected (Use Reimbursable pay item).
l. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
m. Monitoring (Use Sample Collection pay item).
n. Analyses (Use Laboratory Analysis pay item).
o. Remedial Action General or Interim Report (Use Reports pay item).

14-1. Direct Push Boring with In-Situ Injection: [Per Foot].

14-2. In-Situ Injection Into Existing Well/Treatment Point: [Per Injection Point].

14-3. Materials to be Injected: [Reimbursable].

14-4. Groundwater Injection System (not by direct push) [Per Week]: System must include a potable water transfer pump capable of overcoming injection well head pressure, pressure gauges, mixing system and all equipment necessary to transfer and thoroughly mix injection solution and potable water, a manifold with outlet legs (equipped with pressure gauges, flow meters, and) to each treatment point.

14-5. Groundwater Injection System (not by direct push) [Per Month]: System must include a potable water transfer pump capable of overcoming injection well head pressure, pressure gauges, mixing system and all equipment necessary to transfer and thoroughly mix injection solution and potable water, a manifold with outlet legs (equipped with pressure gauges, flow meters, and) to each treatment point.

15. **REMEDIAL ACTION CONSTRUCTION:** The following pay items are for all inclusive activities associated with the installation of remediation systems in accordance with the approved remedial action plan in two parts; trenching, and system integration and startup. Trenching includes the shallow trenching, installation and testing of plumbing and electrical equipment between the remediation system components and treatment/recovery points. System integration and startup includes installation of treatment equipment, connection and testing of all plumbing and electrical components to pre- treatment, treatment and telemetry equipment, utilities, discharge points and treatment/recovery points within the remediation system, and system startup.

NOTE: Contractor is responsible for correcting any issues associated with backfill and compaction that may arise such as subsidence, cracking of concrete or pavement, etc., including mobilizations, personnel, material and equipment.

15.A. TRENCHING

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Field oversight by a qualified Remediation Technician or Field Technician.
c. Trenching.
d. Installation and testing of liquid, vapor and/or air plumbing lines including all electrical equipment.
e. Pea gravel, backfill material, and poly sheeting.
f. Backfilling and compacting.
g. Compaction testing.
h. Debris removal.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

i. Mobilization of personnel and equipment to and from site (Use Mobilization pay item).
j. Plumbing and electrical materials/equipment installed in trench (Use Reimbursable pay item).
k. Concrete or asphalt replacement (Use Resurfacing pay item).

15-1. Trenching and Installation of Plumbing (and Electrical) Lines in Trench: [Per Linear Foot]. For up to up to 8 liquid/vapor/air plumbing lines. Electrical lines are not counted in determination of cost. ***Replaced by 15-1.a. through 15-1.d.***

15-1.a Trenching and Installation of 1-10 Plumbing (and Electrical) Lines in Trench: [Per Linear Foot of Trench]. Electrical lines are not counted in determination of cost.

15-1.b. Trenching and Installation of 11 – 20 lines: [Per Linear Foot of Trench].

15-1.c. Trenching and Installation of 21 – 30 lines: [Per Linear Foot of Trench].

15-1.d. Trenching and Installation of additional 1-10 lines greater than 30 lines: [Per Linear Foot of Trench].

15-2. Trenching and Installation Additional 2 plumbing lines: [Per Linear Foot]. ***Replaced by 15-1.b through 15-1.d.***

15-2.a. Installation of Plumbing (and Electrical) Lines Above Ground: [Per Linear Foot of Piping]. Electrical lines are not counted in determination of cost.

15-3. Plumbing and Electrical Materials/Equipment Installed in Trench: [Reimbursable].

15-3.a. Traffic Bearing Trench Plates (materials): [Reimbursable].

15-3.b. Infiltration Gallery Installation: [Reimbursable]. Installation of horizontal infiltration gallery materials and system controls as indicated in the design. Does not include trench work, refer to pay items 15-1 through 15-4. Does not include special backfill requirements (#57 stone, pea gravel), use line items in Section 10.

15.B. Remediation System Integration and Startup: The following pay items will be used for the installation and integration of remediation system equipment, connection and testing of all plumbing and electrical components to pre-treatment, treatment and telemetry equipment, utilities, discharge points and treatment/recovery points within the remediation system, and initial system startup for three days. These pay items are generally not applicable to pilot tests and may not be applicable to certain types of short term/episodic remedial events that do not require the full scope of work listed.

NOTE (1): System startup included in this pay item represents the initial startup following construction and is not applicable to subsequent system startups following down time for repair, sampling, system modification etc.

NOTE (2): Technology components include groundwater recovery separate from multiphase, air sparge, soil vapor extraction and multi-phase. Add on components including carbon treatment and thermox/catox treatment are not considered to be separate "technology components" for the purpose of determining the applicable pay items in this category.

NOTE (3): Additional costs will not be approved during the startup period unless major modifications involving additional equipment are necessary. Additional costs for systems with previously used components will be considered on a case-by-case basis.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Startup assistance, if necessary, by equipment manufacturer/ vendor/specialist.

c. Field oversight by qualified Remediation Technician.
d. Review and project coordination per approved RAP.
e. Setting up utility accounts.
f. Installing pumps, compressors and blowers, including well plumbing and electrical.
g. Integrating one (1) technology component the remediation system and connecting manifolds to the system, including plumbing and electrical.
h. Connecting up ten (10) recovery/treatment wells/points to the plumbing/electrical lines and manifolds.
i. Connecting utilities to the remediation system and the system to a discharge point.
j. Installing groundwater pre-treatment unit to prevent scale/bacteria build-up.
k. Installing catox/thermox vapor treatment equipment, if applicable.
l. Installing telemetry unit for remote access to system.
m. Testing and trouble-shooting the system, including optimizing and reevaluating system performance during the startup period.
n. Compound construction/fencing labor only.
o. System related sampling of water and air streams including all recovery/treatment and discharge points.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

p. Mobilization of personnel and equipment to and from site (Use Mobilization pay items).
q. Project oversight and evaluation by a Florida registered P.E. (Use negotiated costs).
r. Remediation System Equipment (Use Packaged Work Scopes or Remediation System Use Pay items).
s. Trenching and installation of plumbing and electrical in trenches (Use Trenching pay item).
t. Treatment/recovery wells (Use Drilling and Boring and Well Installation pay items).
u. Installation of well vaults (Use Well Installation pay item).
v. Compound construction/fencing materials (Use Reimbursable pay item).
w. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
x. Chemicals for groundwater pre-treatment (Use Reimbursable pay item).
y. Laboratory analytical testing of all system and monitoring well samples (use Laboratory Analytical Testing pay item).

15-4. <u>System Installation/Integration/Startup – 1 technology component – up to eight (8) recovery/treatment points:</u> [Per Integration/Startup]. ***Replaced by 15-4.a. through 15-4.d.***

15-4.a. System Installation/Integration/Startup – 1 technology component with 1-10 recovery/treatment points: [Per Integration/Startup].

15-4.b. System Installation/Integration/ Startup – 1 technology component with 11-20 recovery/treatment points: [Per Integration/Startup]

15-4.c. System Installation/Integration/Startup – 1 technology component with 21-30 recovery/treatment points: [Per Integration/Startup].

15-4.d. System Installation/Integration/Startup – 1 technology component – u p t o 110 additional recovery/treatment points greater than 30 recovery/treatment points: [Per Integration/Startup]. This item is used in addition to item 15-4.c when over 30 points are needed.

15-5. System Installation/Integration/Startup – Addition of 1 technology component: [Per Additional Tech Component].

15-6. System Installation/Integration/Startup – Addition of 2 recovery/treatment points: [Per 2 Recovery/Treatment Points]. Removed, see 15-4.a through 154.d.

15-7. Compound Construction/fencing (materials): [Reimbursable].

15-8. Utility Drop: [Reimbursable]. Utility company costs to install the power requirements of the remedial action system to the electric meter. Costs from electric meter to the remediation system are not included.

15-9. Utility Connection: [Reimbursable]. Costs associated with purchase and installation of power pole, electric connect, and electric meter box. Does not include costs for electrical connections from the pole to the treatment system, see line item 15B.

15-10. Utility Disconnect: [Reimbursable]. Costs associated with removal of electrical connections, electric meter, electric meter box, electric disconnect, and electric pole.

16. **REMEDIAL ACTION – PACKAGED WORK SCOPES (Including Remediation System Equipment):** The following pay items are for providing turnkey packages of remediation system equipment, other equipment and personnel to operate, monitor, troubleshoot and optimize performance for the specified time events/time periods and have been separated into two categories; Pilot Testing Packages and Short Term/Episodic Event System Operation Packages.

16.A. Pilot Testing Packages (Including Remediation System Equipment): The following pay items are all inclusive packages, including personnel, remediation system equipment and other equipment, liquid storage, oil-water separation, pre-treatment, carbon treatment and/or off-gas treatment necessary to conduct pilot testing where warranted and in accordance with an approved pilot test plan and the following guidance: BPSS-2 – In Situ Sparging; Pilot Studies, Design Requirements (5/1/98), BPSS-4 – Vacuum Extraction, Multi-Phase Extraction, Pilot Studies, Air Emissions Treatment and Monitoring Requirements (5/10/00); BPSS-12 – Pilot Test Guidelines for Preapproval Program Sites (2/3/04), BPSS-12A – In-Situ Air Sparging Pilot Test Guidance (9/2/03), BPSS-12B – Soil Vapor Extraction Pilot Test Guidance (9/2/03); BPSS – 12C – Biosparge Pilot Test Guidance (9/2/03); BPSS-12D – Multi-Phase Extraction Pilot Test Guidance (9/2/03); BPSS- 12E – Bioventing Pilot Test Guidance; and BPSS-12F – Groundwater Recovery System Pumping Test Guidance. All equipment repairs or parts replacement required during the pilot test are the responsibility of the Contractor.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Field oversight by a qualified Field Specialist or Field Technician
c. All required measurements and sampling of all applicable media for recovery/ treatment/collection points including temperatures, pressures, vacuums, flow rates, volumes, DO, CO2, water and FP levels, radius of influence, etc.
d. System capability for any liquid storage, oil-water separation, pretreatment, carbon treatment and/or off-gas treatment that may be required.
e. All necessary repair and replacement of pilot test equipment.
f. All chemicals and gases required for test.
g. All down well groundwater pumps, if applicable.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

h. Mobilization of personnel and equipment to and from site (Use Mobilization pay item).
i. Project oversight by a Florida registered P.E. (Use negotiated costs).
j. Treatment/recovery/observation wells (Use Drilling and Boring and Well Installation pay items).
k. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
l. Concrete or asphalt installation/replacement require for or as a result of pilot test (Use Resurfacing pay item).
m. Pilot Test Plans and Reports (Use Reports pay item).

16-1. Groundwater Recovery System Pilot Test - 8 hours: [Per Test].

16-2. Groundwater Recovery System Pilot Test - Additional Time: [Per 2 Hrs].

16-3. Air Sparging or Biosparging Pilot Test - 8 hours: [Per Test].

16-4. Air Sparging or Biosparging Pilot Test - Additional Time: [Per 2 Hrs].

16-5. Vapor Extraction Pilot Test - 8 hours: [Per Test].

16-6. Vapor Extraction Pilot Test - Additional Time: [Per 2 Hrs].

16-7. Vapor Extraction/Aquifer Pumping Test - 8 hours: [Per Test].

16-8. Vapor Extraction/Aquifer Pumping Test - Additional Time: [Per 2 Hrs].

16-9. Air Sparging/Vapor Extraction Pilot Test - 8 hours: [Per Test].

16-10. Air Sparging/Vapor Extraction Pilot Test - Additional Time: [Per 2 Hrs].

16-11. Multi-Phase Extraction Pilot Test - 8 hours: [Per Test].

16-12. Multi-Phase Extraction Pilot Test - Additional Time: [Per 2 Hrs.]

16-13. Air Sparging/Multiphase Extraction Pilot Test - 8 hours: [Per Test].

16-14. Air Sparging/Multiphase Extraction Pilot Test - Additional Time: [Per 2 Hrs].

16.B. Short Term/Episodic System Operation Packages (Including Remediation System Equipment): The following pay items are all inclusive packages of mobilization, Per Diem, labor, materials and equipment, including remediation system equipment, liquid storage, oil-water separation, pre-treatment, flow equalization, carbon polishing treatment and, if applicable, off-gas treatment for conducting operation, monitoring, system related sampling, maintenance, trouble shooting, minor repairs and parts replacements for remediation systems on a daily or weekly basis in accordance with the approved RAP/RAPMOD and applicable guidance. This pay item also includes ongoing engineering evaluation and system optimization and recording of major component run times. Major and minor equipment repairs or parts replacement are the responsibility of the Contractor. DEP Project Manager shall be contacted within 72 hours of any changes to system status.

NOTE: Remediation systems shall have a minimum operational runtime of 80% of the approved design run time for all major components. For runtime of less than 80% of the approved design run time for all major components following the approved downtime guidance in the Project Managers Guide – Remediation System Runtime Evaluation during the pay item time frame, the pay item will be invoiced at the amount equal to the percentage runtime using the following method: multiply the full pay item amount times the actual runtime percentage = invoice amount (e.g., if runtime is 75%, only 75% of the full pay item amount will be paid).

General Remediation System Requirements: All system designs must incorporate all applicable OSHA and electrical safety standards including National Electrical Code and NFPA standards, and be UL certified or equivalent. Systems must include control panels with telemetry capable of remote monitoring and operation (except in cases where the system will be monitored by personnel on-site), phase monitors, intrinsically safe barriers for all switches (i.e. thermal overload, full tank pump shut off, interlock that prevents operation of the air sparging system in the event the VES is not operating, etc.), surge and lightning protection, portable ventilated weather resistant enclosure in the form of skid mounted building or enclosed trailer, freeze protection, hurricanes straps and anchors, gauges, meters, totalizers and run time hour meters for each major component to verify operation within required specifications. Systems shall also include means of noise reduction to limit noise levels to 65 dB or less at 10 feet.

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Groundwater Treatment System Requirements: System must include a control panel, multi-well inlet manifold, oil/water separator, equalization tank, transfer pump, tray air stripper with blower, carbon polishing capability, inlet and outlet ports, valves, totalizing flow meters, switches, thermal overload and overflow shut off capability.			
System Size	Minimum Water Flow Capacity	Minimum Number of Legs Manifold	Minimum Air Flow Capacity (SCFM)
Medium	150	10	750

Air Sparging System Requirements: System must provide compressed oil free air at a temperature compatible with schedule 40 PVC pipe. The system must include control panel, applicable filters, a manifold to distribute air to each air sparging well, and means to measure air flow and pressure to each air sparging well, a pressure relief valve, discharge silencers/noise control, and a means of condensate removal.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Medium	10	10	150

Vapor Extraction System Requirements: The system must include a SVE blower/pump, air dilution valves, vacuum relief valves, transfer pump, moisture separator device, telemetry, control panel and applicable filters and meters. The system must include the capacity to add and remove vapor treatment equipment as needed. The system must include a manifold to withdraw air from VE wells and include sampling port for all applicable parameters.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Medium	10	10	250

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Air Sparging/Soil Vapor Extraction System Requirements: System must provide oil free air at a temperature compatible with schedule 40 PVC pipe. The system must include a manifold to distribute and measure air flow and pressure to each air sparging well. The system must include a moisture separator device. The system must include a manifold to withdraw air from vacuum extraction (VE) wells and include sampling port for all applicable parameters. The system must include an interlock that prevents operation of the air sparging system in the event the VES is not operating.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Medium	See individual specs for AS and SVE above		

Multiphase Extraction System Requirements: System must include MPE blower or pump, heat exchanger, moisture separator, vacuum relief, and air stripper. The system must include the capacity to add and remove vapor treatment equipment as needed. The system must include a manifold to withdraw air and water from MPE wells and include sampling ports for all applicable parameters.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Medium	10 to 20	10 to 20	60 to 150

Air Sparging/Multiphase Extraction System Requirements: System must provide oil free air at a temperature compatible with appropriate pipe. The system must include a manifold to distribute and measure air flow and pressure to each air sparging well. System must include MPE blower or pump, heat exchanger, moisture separator, vacuum relief, and air stripper. The system must include a manifold to withdraw air from MPE wells and include sampling port for all applicable parameters. The system must include an interlock that prevents operation of the air sparging system in the event the MPE is not operating.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Medium	See individual specs for AS and MPE above		

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Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Mobilization of personnel, systems and associated equipment to and from site.
c. Per Diem for personnel travel, if applicable.
d. System operation, troubleshooting, minor and major repairs and replacement, evaluation and optimization.
e. System capability for any liquid storage, oil-water separation, pretreatment, carbon treatment and/or off-gas treatment that may be required.
f. All down well groundwater pumps, if applicable.
g. Collection of all required system related measurements samples including recovery/treatment and discharge points.
h. Field oversight by a qualified Remediation Technician.
i. Minor RAP modification report preparation. Examples of minor RAP modifications include revisions to the milestone schedule, equivalent equipment replacements or minor equipment changes not affecting the cleanup strategy, removal of off-gas treatment when no longer required, removal of treated ground water polishing when no longer required, etc.
j. Daily business day monitoring of telemetry.
k. Documentation of all equipment maintenance in accordance with equipment manufacturer's recommendations.
l. Repair or replacement of equipment and all associated costs that are determined to be the result of a failure to either perform preventative maintenance or to operate the equipment in accordance with the manufacturer's recommendations or the approved RAP/RAP Mod.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

m. Project oversight by a Florida registered P.E. (Use negotiated costs).
n. Treatment/recovery wells (Use Drilling and Boring and Well Installation pay items).
o. Monitoring well sampling and water or product level measurements, excluding treatment/recovery points (Use Sample Collection pay item).
p. Laboratory analytical testing of all system and monitoring well samples (Use Laboratory Analytical Testing pay item).
q. Major repair, replacement or modification of State-owned equipment outside the warranty or warranty period (case-by case).
r. Contractor mobilization for major repair or replacement of State-owned equipment outside the warranty or warranty period, that is required independent of scheduled O&M visits (Use Mobilization pay item).

s. Utilities including electricity, propane and sewer (Use Reimbursable pay item if not paid directly by DEP).
t. Remedial action reports (Use Reports pay item).
u. Actions and costs to address shut down, malfunction or damage caused by natural events such as lightning, hurricanes, tornadoes, floods and deep freezes if the Contractor has taken reasonable and cost-appropriate precautions against such events. Appropriate precautions shall include protection of equipment from the elements, securing equipment and enclosures against high winds, protection of exposed piping and equipment against freeze, and protection against lightning strikes.
v. Any necessary repair or replacement of equipment that is determined to be the result of a failure to either perform preventative maintenance or to operate the equipment in accordance with the manufacturer's recommendations or the approved RAP/RAP Mod will be the responsibility of the Contractor.
w. Major RAP modification report preparation (Use Reports pay item).
x. Waste disposal (Use Debris, Waste and Product Removal and Disposal pay item).
y. Chemicals, replacement carbon and/or replacement pre-treatment filters for pretreatment or vapor treatment (Use Reimbursable pay item).

16-17. Groundwater Treatment System Package - Medium: [Per Day].

16-18. Groundwater Treatment System Package - Medium: [Per Week].

16-19. Air Sparge System Package - Medium: [Per Day].

16-20. Air Sparge System Package - Medium: [Per Week].

16-21. AS/SVE System Package - Medium: [Per Day].

16-22. AS/SVE System Package - Medium: [Per Week].

16-23. MPE System Package - Medium: [Per Day].

16-24. MPE System Package - Medium: [Per Week].

16-25. AS/MPE System Package – Medium: [Per Day].

16-26. AS/MPE System Package – Medium: [Per Week].

16-27. SVE System Package - Medium: [Per Day].

16-28. SVE System Package - Medium: [Per Week].

17. **REMEDIATION SYSTEM O&M PACKAGED WORK SCOPES (Excluding Remediation System Equipment):** The following pay items are all inclusive packages on a monthly basis of mobilization, Per Diem, labor, materials and equipment necessary (excluding remediation system equipment) for conducting operation, monitoring, system related sampling, preventative maintenance, trouble shooting, minor repairs and parts replacements for remediation systems after startup in accordance with the approved RAP/RAPMOD and applicable guidance. This pay item also includes ongoing evaluation and system optimization and recording of major component run times, and service fees for system telemetry. The DEP Project Manager shall be contacted within 72 hours of any changes to system status.

NOTE (1): This pay O&M item is intended for use with either remediation systems provided by the Contractor at unit costs for time used as outlined in section 18 below or with pre-existing State-owned remediation systems. This pay item is not intended for use with remedial action packaged work scopes that include personnel and remediation system equipment for shorter time periods as outlined in section 16 above.

NOTE (2): Preventative maintenance covered by this O&M pay item includes, but is not limited to: air compressor maintenance, including oil changes, vane wear measurements and vane replacement, AS and SVE blower maintenance, surface/submersible pump maintenance and cleaning, tray stripper cleaning, heat exchanger cleaning, filter cleaning or replacement, pump/compressor oil changes, adjustment of pump intake elevations, routine cleaning and acidizing of pumps and water treatment units, cleaning and calibration of sensors, meters and gauges, function checks of fail-safe/interlock mechanisms, verification/replacement of safety guards and screens and compound maintenance, weed control and general housekeeping.

NOTE (3): Minor repairs covered by this O&M pay item include, but are not limited to: repair or replacement of cracked or damaged pipes or hoses, replacement of small parts such as valves, gauges, switches, belts, etc., replacement of compressor/pump drive belts and couplings, and repair and painting of fences, gates, enclosures and compound covers.

NOTE (4): Major equipment repairs or parts replacement for remediation systems provided by the Contractor at unit costs for time used are the responsibility of the Contractor and covered under the Remedial Action Equipment Use pay item. However, major repairs or parts replacement for existing State-owned equipment may apply on a case-by-case basis provided the equipment is not covered by warranty and the Contractor has received prior written approval from the DEP Project Manager after consideration of cost effectiveness and following all State property rules and guidelines pertaining to capitalization, transfer, tracking and surplus. Examples of major equipment repairs/replacement include but are not limited to: blower vane replacement requiring complete disassembly (i.e., cleanout of

shattered vane fragments), oil seal replacement requiring dismantling of equipment, replacement of large system components such as blowers, compressors, liquid ring pumps, submersible pumps, air/water and oil/water separators, etc., replacement of air stripping tower packing, and replacement of carbon vessels or carbon change out of same.

NOTE (5): Remediation systems, either provided by the Contractor at unit costs for time used or pre-existing State-owned equipment, shall have a minimum operational runtime of 80% of the approved design run time for all major components following the approved downtime guidance in the Project Managers Guide – Remediation System Runtime Evaluation. For runtime of less than 80% of the approved design run time for all major components during the pay item time frame, the pay item will be invoiced at the amount equal to the percentage runtime using the following method: multiply the full pay item amount times the actual
runtime percentage = invoice amount (e.g., if runtime is 75%, only 75% of the full pay item amount will be paid).

NOTE (6): The pay item choices are based on the size and complexity of the remediation system in the approved RAP/RAP Mod with a supplemental option for those sites utilizing catalytic or thermal oxidizers for off-gas treatment during the initial period of treatment. Pre-treatment and add-on carbon treatment (vs. sole treatment technology) and add-on thermox/catox treatment are not considered to be separate "Technologies" for the purpose of determining small, medium and large system size pay items. The appropriate pay item will be determined using the following criteria:

Treatment/Recovery	1 Technology	2 Technologies	3 Technologies
<10 Treat/Recovery Points	Small	Small	Small
10-20 Treat/Recovery	Medium	Medium	Medium
21-40 Treat/Recovery	Large	Large	Large
>40 Treat/Recovery Points	n/a	Extra Large	Extra Large

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Mobilization of personnel and non-remediation system equipment to and from site (excluding three weekly visits during the first month of startup).
c. Per Diem for personnel travel, if applicable.
d. System operation and evaluation.
e. System and treatment/recovery point performance parameter data collection (pressure, vacuum, flow rates, gauging and recording depth to water in select monitoring wells, temperatures, etc.).

f. System related sampling of water and air streams including all recovery/treatment and discharge points.
g. Adjustments to flow rate, pressure, vacuum, RPM, fail-safe/interlock settings.
h. Equipment and sensor calibration.
i. Recovery/treatment well water or product level measurements.
j. System preventative maintenance.
k. Minor repairs.
l. Major repair or replacement parts for existing State-owned equipment while covered under the manufacturer's warranty or equipment provided by the Contractor at unit costs for time used at any time.
m. Trouble-shooting visits to diagnose system shut downs or malfunctions, make minor repairs and re-start systems.
n. Oversight by a qualified Remediation Technician.
o. Telemetry service fees and daily business day monitoring of telemetry.
p. Documentation of all equipment maintenance in accordance with equipment manufacturer's recommendations.
q. Repair or replacement of equipment and all associated costs that are determined to be the result of a failure to either perform preventative maintenance or to operate the equipment in accordance with the manufacturer's recommendations or the approved RAP/RAP Mod.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

r. Project oversight by a Florida registered P.E. (Use negotiated costs).
s. Monitoring well sampling, excluding treatment/recovery points (Use Sample Collection pay item).
t. Laboratory analytical testing of all system and monitoring well samples (Use Laboratory Analytical Testing pay item).
u. Major repair, replacement parts or modification of existing State-owned equipment outside the warranty or warranty period (case-by-case).
v. Contractor mobilization for three weekly visits during the first month of startup, major repair, replacement parts or modification of existing State-owned equipment outside the warranty or warranty period, that is required independent of scheduled O&M visits (Use Mobilization pay item).
w. Utilities including electricity, propane and sewer (Use Reimbursable pay item if not paid directly by DEP).
x. Remedial action reports (Use Reports pay item).
y. Actions and costs to address shut down, malfunction or damage caused by natural events such as lightning, hurricanes, tornadoes, floods and deep freezes if the Contractor has taken reasonable and cost-appropriate precautions against such events.

Appropriate precautions shall include protection of equipment from the elements, securing equipment and enclosures against high winds, protection of exposed piping and equipment against freeze, and protection against lightning strikes.

z. Any necessary repair or replacement of equipment that is determined to be the result of a failure to either perform preventative maintenance or to operate the equipment in accordance with the manufacturer's recommendations or the approved RAP/RAP Mod will be the responsibility of the Contractor.

aa. RAP modification report preparation (Use negotiated costs).

bb. Waste disposal (Use Waste Disposal and Product Handling pay item).

cc. Chemicals and/or replacement carbon for pretreatment or vapor treatment (Use Reimbursable pay item).

17-1. System O&M Package - Small (excludes system): [Per Month].

17-2. System O&M Package - Medium (excludes system): [Per Month].

17-3. System O&M Package - Large (excludes system): [Per Month].

17-4. System O&M Package – Extra Large (excludes system): [Per Month].

17-5. Supplemental System O&M Package - Add Thermox or Catox Treatment: [Per Month].

18. **REMEDIAL ACTION EQUIPMENT/SYSTEM USE (Equipment Only, Excluding O&M):** The following pay items are for equipment use only items or turnkey remediation systems as specified. Major repairs and component/parts replacement are the responsibility of the Contractor under this pay item. Maintenance, trouble shooting, minor repairs and parts replacements for equipment are covered by the Monthly Remediation System O&M Package pay items. Systems provided by the Contractor at unit costs for time used include carbon polishing equipment and initial carbon for groundwater, but do not include carbon treatment equipment or catox/thermox equipment for off-gas treatment. Damage, loss and liability associated with equipment use is the responsibility of the Contractor and any costs associated with insurance and/or liability damage waivers are included in the fixed cost.

NOTE: Remediation systems provided by the Contractor at unit costs for time used shall have a minimum operational runtime of 80% of the approved design run time for all major components following the approved downtime guidance in the Project Managers Guide – Remediation System Runtime Evaluation. For runtime of less than 80% of the approved design run time for all major components during the pay item time frame, the pay item will be invoiced at the amount equal to the percentage runtime using the following method:

multiply the full pay item amount times the actual runtime percentage = invoice amount (e.g., if runtime is 75%, only 75% of the full pay item amount will be paid).

General Remediation System Requirements: All system designs must incorporate all applicable OSHA and electrical safety standards including National Electrical Code and NFPA standards, and be UL certified or equivalent. Systems must include control panels with telemetry capable of remote monitoring and operation (except in cases where the system will be monitored by personnel on-site), phase monitors, intrinsically safe barriers for all switches (i.e. thermal overload, full tank pump shut off, interlock that prevents operation of the air sparging system in the event the VES is not operating, etc.), surge and lightning protection, portable ventilated weather resistant enclosure in the form of skid mounted building or enclosed trailer, freeze protection, hurricanes straps and anchors, gauges, meters, totalizers and run time hour meters for each major component to verify operation within required specifications. Systems shall also include means of noise reduction to limit noise levels to 65 dB or less at 10 feet.

Groundwater Treatment System Requirements: System must include a control panel, multi-well inlet manifold, down well groundwater pumps, oil/water separator, equalization tank, transfer pump, tray air stripper with blower, carbon polishing capability, inlet and outlet ports, valves, totalizing flow meters, switches, thermal overload and overflow shut off capability.

System Size	Minimum Water Flow Capacity	Minimum Number of Legs Manifold	Minimum Air Flow Capacity (SCFM)
Small	75	5	300
Medium	150	10	750
Large	250	20	1500

Air Sparging/Soil Vapor Extraction System Requirements: System must provide oil free air at a temperature compatible with schedule 40 PVC pipe. The system must include a manifold to distribute and measure air flow and pressure to each air sparging well. The system must include a moisture separator device. The system must include a manifold to withdraw air from vacuum extraction (VE) wells and include sampling port for all applicable parameters. The system must include an interlock that prevents operation of the air sparging system in the event the VES is not operating.

System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Small	See individual specs for AS and SVE above		
Medium			
Large			

Air Sparging System Requirements: System must provide compressed oil free air at a temperature compatible with schedule 40 PVC pipe. The system must include control panel, applicable filters, a manifold to distribute air to each air sparging well, and means to measure air flow and pressure to each air sparging well, a pressure relief valve, discharge silencers/noise control, and a means of condensate removal.

System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Small	5	5	50
Medium	10	10	150
Large	20	20	250

Vapor Extraction System Requirements: The system must include a SVE blower/pump, air dilution valves, vacuum relief valves, transfer pump, moisture separator device, telemetry, control panel and applicable filters and meters. The system must include the capacity to add and remove vapor treatment equipment as needed. The system must include a manifold to withdraw air from VE wells and include sampling port for all applicable parameters.

System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Small	5	5	100
Medium	10	10	250
Large	20	20	500

Air Sparging/Multiphase Extraction System Requirements: System must provide oil free air at a temperature compatible with schedule 40 PVC pipe. The system must include a manifold to distribute and measure air flow and pressure to each air sparging well. System must include MPE blower or pump, heat exchanger, moisture separator, vacuum relief, and air stripper. The system must include a manifold to withdraw air from MPE wells and include sampling port for all applicable parameters. The system must include an interlock that prevents operation of the air sparging system in the event the MPE is not operating.

System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Small	See individual specs for AS and MPE above		
Medium			
Large			

Multiphase Extraction System Requirements: System must include MPE blower or pump, heat exchanger, moisture separator, vacuum relief, and air stripper. The system must include the capacity to add and remove vapor treatment equipment as needed. The system must include a manifold to withdraw air and water from MPE wells and include sampling ports for all applicable parameters.			
System Size	Minimum Blower Size (HP)	Minimum Number of Legs in Manifold	Minimum Air Flow Capacity (SCFM)
Small	5 to <10	5-10	35 to 60
Medium	10 to 20	10 to20	60 to 150
Large	20 to 40	20 to 40	150 to 300
Carbon Off-Gas Treatment Add-On: Carbon canisters must be equipped with standard size inlet/outlet connections and drain for accumulated condensate.			
System Size	Pounds of Granular Activated Carbon		
Small	<500		
Medium	500-1000		
Large	>1000-2000		
Thermal or Catalytic Off-Gas Treatment Add-On: Oxidizer must be electric powered and include control panel equips with telemetry, motor starter overload, LEL monitor and standard size inlet/outlet connections.			
System Size	Minimum Air Flow Capacity (SCFM)		
Small	100		
Medium	250		
Large	500		

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material and non-O&M labor costs.
b. All down well groundwater pumps, if applicable.
c. Carbon polishing equipment and initial carbon.
d. Major repairs or replacement items, including remediation equipment in need of replacement, and associated mobilizations to and from site for that purpose.
e. Costs for equipment and liability insurance and/or liability damage waivers.
f. Mobilization to and from the site for replacement remediation system.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

g. Mobilization of personnel and equipment to and from site for initial installation and final removal (Use Mobilization pay item).
h. Operation, monitoring, maintenance, minor repairs, sampling, etc. (Use Monthly Remediation System O&M Package pay item).
i. Telemetry Service Fees, excluding telemetry equipment (Use Package Work Scope pay item).

j. Utilities including electricity, propane and sewer (Use Reimbursable pay item if not paid directly by DEP).
k. Chemicals and/or replacement carbon for pretreatment, groundwater polishing or vapor treatment (Use Reimbursable pay item).

18-1. Medium Holding Tank 2,000 to 6,000 gallon capacity - Short Term < 6 mos.: [Per Month]. This pay item is to provide a medium size onsite holding tank to containerize groundwater.

18-2. Medium Holding Tank 2,000 to 6,000 gallon capacity - Long term > 6 mos.: [Per Month]. This pay item is to provide a medium size onsite holding tank to containerize groundwater.

18-3. Large Holding Tank > 6,000 to 10,000 gallon capacity - Short Term < 6 mos.: [Per Month]. This pay item is to provide a large size onsite holding tank to containerize groundwater.

18-4. Large Holding Tank > 6,000 to 10,000 gallon capacity - Long Term > 6 mos.: [Per Month]. This pay item is to provide a large size onsite holding tank to containerize groundwater.

18-5. Groundwater Treatment System – Stand Alone Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-6. Groundwater Treatment System – Stand Alone Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-7. Groundwater Treatment System – Stand Alone Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-8. Groundwater Treatment System – Stand Alone Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-9. Groundwater Treatment System – Stand Alone Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-10. Groundwater Treatment System – Stand Alone Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey groundwater treatment system as specified above.

18-11. Air Sparge (AS) System – Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-12. Air Sparge (AS) System – Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-13. Air Sparge (AS) System – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-14. Air Sparge (AS) System - Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-15. Air Sparge (AS) System – Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-16. Air Sparge (AS) System - Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS system as specified above.

18-17. Air Sparge/Soil Vapor Extraction (AS/SVE) System – Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-18. Air Sparge/Soil Vapor Extraction (AS/SVE) System – Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-19. Air Sparge/Soil Vapor Extraction (AS/SVE) System – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-20. Air Sparge/Soil Vapor Extraction (AS/SVE) System - Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-21. Air Sparge/Soil Vapor Extraction (AS/SVE) System – Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-22. Air Sparge/Soil Vapor Extraction (AS/SVE) System - Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/SVE system as specified above.

18-23. Multiphase Extraction (MPE) System – Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-24. Multiphase Extraction (MPE) System – Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-25. Multiphase Extraction (MPE) System – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-26. Multiphase Extraction (MPE) System - Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-27. Multiphase Extraction (MPE) System – Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-28. Multiphase Extraction (MPE) System - Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey MPE system as specified above.

18-29. Groundwater Treatment – Add On - Small - Short Term < 6 mos.: [Per Month]. This pay item is to add groundwater treatment capability to a turnkey system as specified above.

18-30. Groundwater Treatment – Add On – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to add groundwater treatment capability to a turnkey system as specified above.

18-31. Groundwater Treatment – Add On – Large - Short Term < 6 mos.: [Per Month]. This pay item is to add groundwater treatment capability to a turnkey system as specified above.

18-32. Groundwater Treatment – Add On – Small - Long Term > 6 mos.: [Per Month]. This pay item is to add groundwater treatment capability to a turnkey system as specified above

18-33. Groundwater Treatment – Add On – Medium - Long Term > 6 mos.: [Per Month]. This pay item is toadd groundwater treatment capability to a turnkey system as specified above.

18-34. Groundwater Treatment – Add On – Large - Long Term > 6 mos.: [Per Month]. This pay item is to add groundwater treatment capability to a turnkey system as specified above.

18-35. Carbon Treatment - Add On – Small - Short Term < 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-36. Carbon Treatment - Add On – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-37. Carbon Treatment - Add On – Large - Short Term < 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-38. Carbon Treatment - Add On – Small - Long Term > 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-39. Carbon Treatment - Add On – Medium - Long Term > 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-40. Carbon Treatment - Add On – Large - Long Term > 6 mos.: [Per Month]. This pay item is to add carbon off-gas treatment capability to a turnkey system as specified above.

18-41. Thermox/Catox - Add On – Small - Short Term < 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment capability to a turnkey system as specified above.

18-42. Thermox/Catox - Add On – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment capability to a turnkey system as specified above.

18-43. Thermox/Catox - Add On – Large - Short Term < 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment capability to a turnkey system as specified above.

18-44. Thermox/Catox - Add On – Small - Long Term > 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment to a turnkey system as specified above.

18-45. Thermox/Catox - Add On –Medium - Long Term > 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment to a turnkey system as specified above.

18-46. Thermox/Catox - Add On – Large - Long Term > 6 mos.: [Per Month]. This pay item is to add thermal or catalytic oxidizer off-gas treatment to a turnkey system as specified above.

18-47. Soil Vapor Extraction (SVE) System – Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-48. Soil Vapor Extraction (SVE) System – Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-49. Soil Vapor Extraction (SVE) System – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-50. Soil Vapor Extraction (SVE) System - Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-51. Soil Vapor Extraction (SVE) System – Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-52. Soil Vapor Extraction (SVE) System - Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey SVE system as specified above.

18-53. Air Sparge/Multiphase Extraction (AS/MPE) System – Small - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

18-54. Air Sparge/Multiphase Extraction (AS/MPE) System – Small - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

18-55. Air Sparge/Multiphase Extraction (AS/MPE) System – Medium - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

18-56. Air Sparge/Multiphase Extraction (AS/MPE) System - Medium - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

18-57. Air Sparge/Multiphase Extraction (AS/MPE) System – Large - Short Term < 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

18-58. Air Sparge/Multiphase Extraction (AS/MPE) System - Large - Long Term > 6 mos.: [Per Month]. This pay item is to provide a turnkey AS/MPE system as specified above.

19. **REPORTS (Excluding Professional Engineering and Professional Geology Services):** The following pay items are for reports associated with specified scopes of work. Reports must be accurate and complete prior to submittal to DEP. All reports must be submitted to DEP in accordance with the requirements in Chapter 62-780, F.A.C., the "Technical Report and Deliverable Related Time Frames" table in Appendix I, applicable DEP guidance, and comply with the DWM Policy on Professional Certification of Technical Documents dated March 31, 2000, if applicable. All Reports must include a history of the site, a summary of activities completed under the work order, field notes and appropriate logs for any field work, lab reports, tables, figures and maps as applicable, evaluation of the data provided, deviations from Task Assignment requirements, and recommendations for additional work needed to move the site towards closure.

The Contractor shall use of the most current version of the specified report, permit, or document form. All maps shall include a dated title block, facility ID, site name and address, north arrow, bar scale, and a legend of all symbols used, whereas distribution maps shall include iso-contours for COCs drawn such that solid lines denote known concentration contours, dashed lines denote likely concentration contours, and dotted lines denote estimated concentration contours. Tables of analytical results shall be cumulative when the data is available, include the required qualifiers and qualifier codes, and bold the results that exceed the applicable target cleanup level. If due diligence was performed and previous data cannot be obtained in electronic format, copies of historical data are sufficient.

NOTE (1): Professional Engineer and Professional Geologist review, evaluation, and certification (signature and seal) where required is excluded from the base report cost required to be provided in the response to the solicitation. Costs for these professional services will be negotiated with those responsive and responsible Respondents selected for consideration of a contract award based on criteria which excludes costs for Professional Geology and Professional Engineering Services.

NOTE (2): Digital data shall be submitted as an e-mail attachment if within size limitations, or on a CD if too large, compatible with Microsoft Word/ExcelTM for a Microsoft WindowsTM configured computer. Data shall also be made available electronically to other DEP contractors at the request of the DEP Project Manager.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All equipment, material, and labor costs.
b. Mailing or other delivery costs.
c. All guidance-specified attachments, including photographic documentation.
d. Oversight and, if applicable, sign and seal by a Florida registered P.G. (or P.E. where allowed as an option to a P.G.)
e. Submittal of one (1) final report hard copy, and one (1) final report digital copy.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

f. Costs for Professional Geologist or Professional Engineer review, evaluation and certification (signature and seal) of plan or report, where required (Use negotiated costs).

19-1. Soil Source Removal Report: [Per Report]. This pay item is to provide written documentation (including photo documentation) and backup information following a soil source removal. The report should include a description and maps of the area and depth

of excavation, including OVA readings and soil analytical samples analyzed. Backup documentation includes weigh tickets and disposal manifests. A registered P.G. or registered P.E. certification is required only if the report includes recommendation for no further action (NFA).

19-2. Site Characterization Screening Report: [Per Report]. This pay item is used as a one-time final deliverable for Screening when field work has been performed and includes a completed Site Characterization Screening Worksheet. A registered P.G. or qualified registered P.E. certification is required to attest to the field work portion of the report only and if the report includes recommendation for no further action (NFA). Recommended for removal.

19-3. General Site Assessment Report: [Per Report]. This report is designed for the use as a comprehensive and final site assessment deliverable documenting all site assessment activities completed up to the point of site assessment phase approval. This pay item most commonly includes but is not limited to a Template Site Assessment Report. The level of effort should determine whether this report or a Supplemental Site Assessment Report should be used. The report must be signed and sealed by a registered P.G. or qualified registered P.E.

19-4. Supplemental Site Assessment Report: [Per Report]. This report is designed for reporting limited site assessment work. This pay item can be used if the level of effort for work conducted during the site assessment phase does not warrant the preparation of a Comprehensive Site Assessment Report or for documenting limited supplemental site assessment activities conducted after approval of the site assessment phase. This pay item is also designed for reporting Low-Scored Site Initiative assessment work. The report must be signed and sealed by a registered P.G. or qualified registered P.E.

19-5. Receptor and Exposure Pathway Report: [Per Report]. This pay item is to report the data collected in the Receptor Survey and Exposure Pathway Identification pay item in section 2-2., including photographic documentation using the July 1, 2013 DEP Draft Receptor Survey and Exposure Pathway Identification Form and required attachments. The report must be signed and sealed by a registered P.G. or registered P.E.

19-6. Level 2 Natural Attenuation Monitoring Plan: [Per Plan]. This pay item is used if concentrations are greater than the Natural Attenuation Default Concentrations referenced in Chapter 62-777, F.A.C. for the Petroleum Products Contaminants of Concern as listed in Table A of Chapter 62-780, F.A.C., and to provide technical justification for selection of NAM. Refer to the Department's Remedial Action Guideline BPSS-11 (5/8/98) for more details.

NOTE: Natural attenuation monitoring plans are not required if concentrations of all chemicals of concern are at or below the Natural Attenuation Default Concentrations referenced in Chapter 62-777, F.A.C. The plan must be signed and sealed by a registered P.E.

19-7. Natural Attenuation or Post RA Monitoring Report, Quarterly or Non-Annual: [Per Report]. This pay item would typically contain information necessary to evaluate the progress of post remediation monitoring or natural attenuation (NA) monitoring for one sampling event. Should provide discussions of results if concentrations have increased to "action" levels or higher. Registered P.E. or P.G. certification is not required unless a recommendation for "No Further Action" or a recommendation to modify the approved monitoring plan is included.

19-8. Natural Attenuation Monitoring Report, Annual: [Per Report]. This pay item provides a more substantial degree of evaluation of the progress of a natural attenuation or post remediation monitoring plan that the quarterly report, including conclusions and recommendations of whether to continue monitoring, validate and re-calibrate any models that may have been used, or re-establish new milestone objectives if necessary. The report must include a conclusions and recommendations section and be signed and sealed by a registered P.G. or registered P.E.

19-9. Pilot Test Plan: [Per Plan]. This pay item is used for pilot testing prior to implementation of the test. All specific goals must be detailed in the pilot test plan including a description of the proposed test, identification of test and measurement points, measurement protocols and expected/minimum duration of tests. The report must describe the proper implementation of the test and the collection of sufficient data to evaluate the feasibility of the proposed technology as well as to effectively design the final system. The plan must be signed and sealed by a registered P.E.

19-10. Pilot Test Report: [Per Report]. This pay item is used to report the results and analysis of pilot testing activities in accordance with Preapproval Program guidance and procedures. All of the specific activities performed during the pilot test must be addressed, including a description of the actual test, identification of test and measurement points, measurement protocols and actual duration of the test. The report must demonstrate the proper implementation of the test and collection of data, as well as evaluation of the feasibility of the tested technology to the effective design of the final system. The report must be signed and sealed by a registered P.E.

19-11. Level 1 Remedial Action Plan: [Per Plan]. This pay item is used when design of a remediation system is needed to clean up the soil and/or groundwater. The report is used when there is a limited area of relatively low levels of contamination and an evaluation

of remedial alternatives is not necessary. The report shall include all appropriate tables, figures, maps and design drawings. The report must be signed and sealed by a registered P.E.

19-12. Level 2 Remedial Action Plan: [Per Plan]. This pay item is used when design of a remediation system is needed to clean up the soil and/or groundwater. The report is used when there is a moderate to large area of contamination and a thorough evaluation of remedial alternatives is necessary. The report includes all appropriate tables, figures, maps and design drawings. The report must be signed and sealed by a registered P.E.

19-13. Level 1 Limited Scope Remedial Action Plan or RAP Modification Plan: [Per Plan]. This pay item is used for short term remediation of either a single event or multiple episodic events with portable remediation equipment which does not involve an on-site treatment process for recovered water or air emissions. The use of the report is generally limited to short-term or episodic biosparging with mobile equipment or short-term groundwater recovery which meets the requirements for interim source removal of Rule 62-780.300(2) where the site could achieve NFA or qualify for Remediation by Natural Attenuation; or modifications that involve mainly minor system changes such as addition of a recovery well/sparging well to an existing system with that technology, or adding a treatment process to an existing system which involves one or two items. The report includes updated maps and design drawings. The report must be signed and sealed by a registered P.E.

19-14. Level 2 Limited Scope Remedial Action Plan or RAP Modification Plan: [Per Plan]. This pay item is used for a soil source removal or greater than 200 cubic yards without dewatering design or geotechnical design. The report is also used for modifications such as a limited pumping event which includes on-site treatment and disposal of recovered water or short term intermittent episodic remediation with mobile sparging/SVE system or multi-phase extraction equipment. The report includes updated maps and design drawings. The report must be signed and sealed by a registered P.E.

19-15. Level 3 Limited Scope Remedial Action Plan or RAP Modification Plan: [Per Plan]. This pay item is used for a soil source removal of greater than 200 cubic yards with dewatering design or geotechnical design, and for large diameter auger soil source removal design. This template is also used for bioremediation or chemical oxidation RAPs. The report must compare the conceptual designs and costs of at least three bioremediation or chemical oxidation vendors and recommend detail design of one based on cost-effectiveness. The report includes all appropriate tables, figures, maps and design drawings. Although the specific design details may be recommended by a vendor, the preapproval contractor's P.E. must certify that the design is their own responsibility and the implementation of the design

will provide a reasonable assurance of performing complete site rehabilitation in accordance with 62-780, F.A.C. The report must be signed and sealed by a registered P.E.

19-16. Level 4 Limited Scope Remedial Action Plan or RAP Modification Plan: [Per Plan]. This pay item is used for major modification to an existing remediation system or addition of a different cleanup technology to a site with an active remediation system (i.e. add in-situ sparging to a site with multi-phase extraction). The report includes all appropriate tables, figures, maps and design drawings. The report is also used for soil source removal of greater than 200 cubic yards where justification is required for funding of storage system removal and/or replacement, resurfacing, canopy removal and replacement, or other facility restoration expenses in which costs will exceed $10,000 or if dewatering and geotechnical design are included. The report must be signed and sealed by a registered P.E.

19-17. Construction Drawings and Specs Report: [Per Report]. This pay item is used when it is necessary to create the detailed scaled drawings of the intended remediation system. The specifications of all equipment and materials to be constructed shall be provided. These drawings must be prepared prior to the preparation of as- built drawings. The construction drawings should be of sufficient detail as to materials and methods of construction to serve as project construction drawings. Typical construction drawings will include: cover page, site vicinity map, remedial system compound layout, recovery well, multi-phase well, air sparing well or soil vapor extraction well details (if needed), piping cross-section, piping and instrumentation diagram (P&ID), electrical controls diagram and equipment pad layout. Symbols on all drawings shall reflect usage established by the American National Standards Institute (ANSI) standards or generally accepted professional standards, abbreviations shall reflect common usage, and graphic scales (or dimensions) will be provided on drawings (except P&ID) to allow for measured scaling. The level of detail of these drawings can be modified based on communications with the DEP Registered P.E. certification is required.

19-18. As-Built Drawings (P.E. sealed red lined modifications): [Per Drawings]. This pay item is used for red-lined construction drawings when not included in the remedial action start up report. Construction drawings must be prepared prior to the preparation of as-built drawings. Per subsection 62-780.700(12), F.A.C., these drawings must include all construction and equipment design specifications and must identify "any operational parameters different from those in the approved Remedial Action Plan." These drawings should include the site name, DEP facility ID number, address and show the types of equipment used. These drawings must be accompanied by an itemized summary of any substantial equipment changes with pertinent technical data (size, capacity, type equipment, electrical requirements, etc.). Although there are no minimum requirements for dimension details, a scale must be provided and all details should be dimensionally

consistent (e.g., all lengths identified). When possible, manufacturer data sheets and performance curves should be included. A summary providing reasons for departure from the criteria described in the approved RAP shall be included. "Red-Lined" construction drawings will be considered to be sufficient provided any changes from the original conceptual design to installation are easily discerned and accurately indicated. If completely recreated figures are submitted as as-builts, the general criteria should be identical to those required for construction drawings. Change in equipment specifications, location, or other details must be accurately and completely depicted in a way that will be readily understandable. The as-built drawings must be sealed by a registered P.E.

19-19. Remedial Action Startup Report: [Per Report]. This pay item is typically used for reporting the initial startup of a remediation system. Any information regarding equipment specifications or operation parameters differing from the RAP should be included in the RA Startup Report. This could include equipment changes, modifications to construction drawings (as-builts), and changes in mode of operation (e.g., pulsed operation rather than continuous). An explanation of all troubleshooting methods used to optimize the system startup should be included. This report usually includes a detailing of all system operational parameters and any problems encountered during startup and photo documentation. Registered P.E. certification is not required unless there is a recommendation for a system modification or significant change in the course of action.

19-20. Letter/NPDES Report: [Per Report]. This pay item is typically one to two pages with no tables or graphs. Used when a minimum response is needed such as to acknowledge completed field work where just observations were made. When used for the NPDES report, this pay item is only authorized once per quarter. However, pursuant to paragraph (4) of the Generic Permit for Discharges from Petroleum Contaminated Sites, "Monitoring results obtained for each calendar month shall be summarized and reported on a Discharge Monitoring Report (DMR) form (DEP form 62-620.910(10)) once each month." Contractors are required to utilize the DEP Wastewater Program eDMR electronic reporting system. Therefore, the quarterly report needs to include pdf copies of three monthly eDMR forms. Registered P.E. certification is not required.

19-21. Operation and Maintenance Report, Quarterly or Non-Annual: [Per Report]. This pay item contains all information needed to evaluate the progress of the approved site remediation activities and includes telemetry monitoring data. This report must include a conclusions and recommendations section and all applicable O&M report tables. Registered P.E. certification is not required, unless there are significant proposed changes to the approved RAP.

19-22. Operation and Maintenance Annual Report: [Per Report]. This pay item requires a more substantial degree of evaluation than quarterly reports, including summary, conclusions,

discussion and recommendations of how the system may be modified or optimized to more cost-effectively and efficiently continue site remediation. The report must evaluate progress relative to cleanup milestone concentration objectives, establish new milestones if necessary and include telemetry monitoring. The report must include a conclusions and recommendations section and all applicable O&M reporting tables. The report must be signed and sealed by a registered P.E.

19-23. Remedial Action General Report: [Per Report]. This pay item is typically used for sites where the entire remediation strategy implemented is bioremediation or chemical oxidation, including chemical enhancement (i.e., ORC injection) with no mechanical equipment design. This report may also be used for any type of short term limited scope remediation events. This report also may be used to report the results of episodic remediation events or supplemental site assessment after SAR approval. The level of effort should determine whether this pay item or the Remedial Action Interim Report should be used. This report must be signed and sealed by a registered P.G. or registered P.E.

19-24. Remedial Action Interim Report: [Per Report]. This pay item can be used in several different post- SAR situations where there is a need for evaluation and discussion of activities and data pertaining to interim events that occur after SAR approval but are not addressed in other specific RAP or RA reports, including but not limited to well installation (monitoring or remediation), soil screening and verification sampling and associated updates of maps and tables. The report should provide documentation, including testing and analytical results, evaluation and discussion of completed work and activities. This report may be tasked in additional to and concurrent with a RAP, RAP Mod, RA Startup or other RA report if significant supplemental assessment activities are to be performed. This report should be used to report analytical results obtained during the remedial action phase following chemical injection or injection of products utilized to increase biological activity. This report also may be used to report the results of episodic remediation events. The level of effort should determine whether this pay item or the General Remedial Action Report should be used. Registered P.E. or P.G. certification is not required unless there is a recommendation for a system modification or significant change in the course of action.

19-25. Free Product Recovery Report: [Per Report]. This pay item documents the effectiveness of FPR efforts from hand bailing, absorbent socks, passive skimmers, and other non-engineered recovery methods. Registered P.E. or PG. certification is not required.

19-26. Well Abandonment/Site Restoration Report: [Per Report]. This is a minimal report to document well (and vault) abandonment and/or site restoration activities when well

abandonment and/or site restoration was the only task performed and requires photo documentation. Registered P.E. or P.G. certification is not required.

19-27. Interim Assessment Report: [Per Report]. This is a minimal report to document site assessment activities when additional work may be required and where there is a need for evaluation and discussion of activities and data. The report should provide documentation, including testing and analytical results, evaluation and discussion of completed work and activities. This report may be tasked in additional to and concurrent with a SA or SSA report if significant supplemental assessment activities are to be performed. The report should include tables and figures documenting the new assessment data and recommendations for additional assessment work, if required. Registered P.E. or P.G. certification is not required.

20. **PERSONNEL (Excluding Professional Engineer and Professional Geologist):** The following pay items are fully loaded hourly personnel labor rates to be used for activities not otherwise covered by the Contract fixed price schedule and requires pre-approval from the DEP Project Manager. Where applicable, when fractional parts of an hour are worked they shall be payable to the nearest quarter- hour. While the minimum qualifications are expected to be met for particular personnel classifications, the labor category and associated rate are determined by the scope of service being tasked, not the individual person actually providing the service (e.g., if a qualified technician is specified but the Contractor assigns a geologist to do the work, the applicable rate paid would be that of a technician. See Contract Descriptions of DEP Labor Categories located Appendix I for additional details.

NOTE: The Contractor must provide notification the DEP Contract Manager of any changes in the **Key** personnel identified in their response to the solicitation and/or upon execution of a contract with the DEP. Such notification shall include a detailed reason(s) for the need to change personnel and the Contractor must provide replacement personnel with equal or greater qualifications and experience.

Unless otherwise specified, the following pay items **INCLUDE**:

a. All overhead, project management, general and administrative expenses, indirect expenses, and profit.

Unless otherwise specified, the following pay items do **NOT INCLUDE**:

a. Professional engineers and professional geologists (Use negotiated costs).

20-1. Program Manager (**Key**): [Per Hour].

20-2. Project Manager (**Key**): [Per Hour].

20-3. Engineer (**Key**): [Per Hour].

20-4. Geologist/Geoscientist (**Key**): [Per Hour].

20-5. Hydrogeologist/Modeler (**Key**): [Per Hour].

20-6 Scientist/Technical Specialist (**Key**): [Per Hour].

20-7. Assistant Scientist/Technical Specialist: [Per Hour].

20-8. Field Technician (**Key**): [Per Hour].

20-9. Draftsperson: [Per Hour].

20-10. Administrative Staff: [Per Hour].

20-11. Laborers and Security Guards: [Per Hour].

21. **PROFESSIONAL ENGINEERING AND PROFESSIONAL GEOLOGY SERVICES:** The following items and activities deemed to be or require Professional Engineering or Professional Geology Services are not included in the Schedule of Pay Item Prices required to be provided in the response to the solicitation. Costs for these items and activities will be negotiated with those responsive and responsible Respondents selected for consideration of a contract award based on criteria which excludes costs for Professional Engineering and Professional Geology Services.

21-1. Professional Engineer (**Key**): [Per Hour].

21-2. Professional Geologist (**Key**): [Per Hour].

21-3. P.G. Field Oversight of Drilling and Boring and Soil-Boring Logging.

21-4. P.G. Field Oversight of Well Installation.

21-5. P.E. Project Oversight for Remediation Technology Pilot Testing.

21-6. P.E. Project Oversight for Remediation System Integration and Startup. ***Select appropriate item from 21-6.a and 21-6.d. below.***

21-6.a. P.E. Project Oversight for Remediation System Integration and Startup – Small System [Per System]

21-6.b. P.E. Project Oversight for Remediation System Integration and Startup – Medium System [Per System]

21-6.c. P.E. Project Oversight for Remediation System Integration and Startup – Large System [Per System]

21-6.d. P.E. Project Oversight for Remediation System Integration and Startup – Extra Large System [Per System]

21-7. P.E. Project Oversight for Short Term or Episodic Remediation System Operation. This pay item is subject to proration for system run times less than 80% of the design run time following the approved downtime guidance in the Project Managers Guide – Remediation System Runtime Evaluation. ***Select appropriate item from 21-7.a and 21-7.b. below.***

21-7.a P.E. Project Oversight for Short Term or Episodic Remediation System Operation – Per Day

21-7.b. P.E. Project Oversight for Short Term or Episodic Remediation System Operation – Per Week

21-8. P.E. Project Oversight for Remediation System Operation and Maintenance activities. This pay item is subject to proration for system run times less than 80% of the design run time following the approved downtime guidance in the Project Managers Guide – Remediation System Runtime Evaluation.

21-9. P.E. Review and Certification of Sufficiency of Engineering Controls (other than permanent, impermeable surface or top two feet of clean fill). Including monitoring and maintenance recommendations required for a No Further Action with Conditions (NFAC).

21-10. P.G. Review and Certification of Sufficiency of Engineering Controls (limited to permanent, impermeable surface or top two feet of clean fill). Including Monitoring and Maintenance Recommendations Required for a No Further Action with Conditions (NFAC).

21-11. P.E. Design and Certification of Plans and Project Oversight of installation of Engineering Controls (other than permanent. impermeable surface or top two feet of clean fill). Required for a No Further Action with Conditions (NFAC).

21-12. P.G. Review, Evaluation and Certification of plans, installation, and project oversight for Engineering Controls (limited to permanent, impermeable surface or top two feet of clean fill). Required for a No Further Action with Conditions (NFAC).

21-13. P.G. or P.E. Review, Evaluation and Certification of a Soil Source Removal Report that includes a Recommendation for No Further Action (NFA).

21-14. P.G. or Qualified P.E. Review, Evaluation and Certification of a Site Characterization Screening or Low Score Assessment Report attesting to the field work portion only and if the Report includes a Recommendation for No Further Action (NFA). ***Recommended for Removal.***

21-15. P.G. or Qualified P.E. Review, Evaluation and Certification of a General Site Assessment Report.

21-16. P.G. or Qualified P.E. Review, Evaluation and Certification of a Supplemental Site Assessment Report.

21-17. P.G. or P.E. Review, Evaluation and Certification of a Receptor and Exposure Pathway Report.

21-18. P.E. Review, Evaluation and Certification of a Level 2 Natural Attenuation Monitoring Plan.

21-19. P.E. Review, Evaluation and Certification of a Non-Annual Natural Attenuation or Post Remedial Action Monitoring Report that includes a Recommendation for NFA or a Recommendation to Modify the Approved Monitoring Plan.

21-20. P.G or P.E. Review, Evaluation and Certification of an Annual Natural Attenuation Monitoring Report.

21-21. P.E. Review, Evaluation and Certification of a Pilot Test Plan.

21-22. P.E. Review, Evaluation and Certification of a Pilot Test Report.

21-23. P.E. Review, Evaluation and Certification of a Level 1 Remedial Action Plan.

21-24. P.E. Review, Evaluation and Certification of a Level 2 Remedial Action Plan.

21-25. P.E. Review, Evaluation and Certification of a Level 1 Limited Scope Remedial Action Plan or RAP Modification Plan.

21-26. P.E. Review, Evaluation and Certification of a Level 2 Limited Scope Remedial Action Plan or RAP Modification Plan.

21-27. P.E. Review, Evaluation and Certification of a Level 3 Limited Scope Remedial Action Plan or RAP Modification Plan.

21-28. P.E. Review, Evaluation and Certification of a Level 4 Limited Scope Remedial Action Plan or RAP Modification Plan.

21-29. P.E. Review, Evaluation and Certification of As-Built Drawings (P.E. sealed red lined modifications).

21-30. P.E. Review, Evaluation and Certification of a Remedial Action Startup Report That Includes a Recommendation for System Modification or Significant Change in the Course of Action.

21-31. P.E. Review, Evaluation and Certification of a Non-Annual Operation and Maintenance Report that includes Significant Proposed Changes to the Approved RAP.

21-32. P.E. Review, Evaluation and Certification of an Annual Operation and Maintenance Report.

21-33. P.G or P.E. Review, Evaluation and Certification of a Remedial Action General Report.

21-34. P.G or P.E. Review, Evaluation and Certification of an Interim Remedial Action Report that includes a Recommendation for System Modification or Significant Change in the Course of Action.

21-35. P.E. Review, Evaluation, and Certification of Construction Drawings.

21-36. P.E. Review, Evaluation, and Certification of Annual Post Active Remediation Monitoring Report

XX. Non-Priced Scheduled Activity. This is outside of the FDEP list of items above. It is intended to be used for scheduled activities, which are outside of the FDEP rates included herein. The cost for this pay item will be negotiated during task order award. Tetra Tech will provide subcontractor pricing as justification for subcontract items as requested.

EXHIBIT B

CONTRACT FEE SCHEDULE

Exhibit B - Contract Fee Schedule

Region: North
Contractor: Tetra Tech, Inc.
Contract #: GC826

PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
1.	**OFFICE ACTIVITIES**			
1-1.	File Review	Per Review	$ 640.00	$ 600.00
1-2.	Site Health & Safety Plan	Per Site	$ 375.00	$ 375.00
1-2.a.	Site Health & Safety Plan for Continued Work at no cost to FDEP	Per Site	Not Applicable	$ -
1-3.	Notice of Discovery of Contamination Package (Initial or TPOC)	Per Package	$ 340.00	$ 320.00
1-4.	Permit Fees - actual fee only, cost to obtain permit is included in applicable pay items	Reimbursable*	$ 1.00	$ 1.00
1-5.	Off-Site Property Access Agreement	Per Agreement	$ 555.00	$ 490.00
1-5.a.	Site Property Access Agreement for Source Property at no cost to FDEP	Per Agreement	Not Applicable	$ -
1-6.	Project Specific Financial Guarantee Bond (if required by DEP)	Reimbursable*	$ 1.00	$ 1.00
1-7.	6% Handling Fee for Cost Reimbursable Items	% Surcharge	Not Applicable	$ -
2.	**FIELD ACTIVITIES - GENERAL**			
2-1.	Site Reconnaissance/Field Measurement Visit	Per Visit	$ 944.00	$ 800.00
2-2.	Receptor Survey and Exposure Pathway Identification (Excludes report)	Per Survey	$ 930.00	$ 895.00
2-3.	Professional Land Survey (If FDEP authorizes, submit quote(s) with Change Order)	Reimbursable*	$ 1.00	$ 1.00
2-4.	Contractor Oversight for Non-Price Schedule Activities	Per Day	$ 1,100.00	$ 1,000.00
3.	**MOBILIZATION**			
3-1.	Mobilization, Light Duty Vehicle (car or 1/2 ton truck) - ≤ 100 miles each way	Per Round Trip	$ 626.22	$ 625.00
3-2.	Mobilization, Light Duty Vehicle (car or 1/2 ton truck) - > 100 miles each way	Per Round Trip	$ 979.32	$ 880.00
3-3.	Heavy Duty/Stakebed Truck (3/4 ton +) - ≤ 100 miles each way	Per Round Trip	$ 525.00	$ 520.00
3-4.	Heavy Duty/Stakebed Truck (3/4 ton +) - > 100 miles each way	Per Round Trip	$ 850.00	$ 830.00
3-5.	Work Trailer - ≤ 100 miles each way	Per Round Trip	$ 305.00	$ 200.00
3-6.	Work Trailer - > 100 miles each way	Per Round Trip	$ 484.00	$ 300.00
3-7.	DPT Rig Mobilization - ≤ 100 miles each way	Per Round Trip	$ 555.00	Not Applicable
3-7.a.	DPT Rig and Support Vehicles Mobilization - ≤ 100 miles each way	Per Round Trip	Not Applicable	$ 528.00
3-8.	DPT Rig Mobilization - > 100 miles each way	Per Round Trip	$ 950.00	Not Applicable
3-8.a.	DPT Rig and Support Vehicles Mobilization - > 100 miles each way	Per Round Trip	Not Applicable	$ 1,232.00

Region: North
Contractor: Tetra Tech, Inc.
Contract #: GC826

PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
3-9.	Drill Rig Mobilization - ≤ 100 miles each way	Per Round Trip	$ 667.00	Not Applicable
3-9.a.	Drill Rig and Support Vehicles Mobilization (hollow stem auger, mud rotary or sonic) - ≤ 100 miles each way	Per Round Trip	Not Applicable	$ 858.00
3-10.	Drill Rig Mobilization - > 100 miles each way	Per Round Trip	$ 1,070.00	Not Applicable
3-10.a.	Drill Rig and Support Vehicles Mobilization (hollow stem auger, mud rotary or sonic) - > 100 miles each way	Per Round Trip	Not Applicable	$ 1,617.00
3-11.	Excavator Mobilization - ≤ 100 miles each way	Per Round Trip	$ 717.00	$ 675.00
3-12.	Excavator Mobilization - > 100 miles each way	Per Round Trip	$ 1,120.00	$ 1,000.00
3-13.	LDA Rig Mobilization - ≤ 100 miles each way	Per Round Trip	$ 7,722.32	Not Applicable
3-13.a.	LDA Rig and Support Vehicles Mobilization - ≤ 100 miles each way	Per Round Trip	Not Applicable	$ 7,700.00
3-14.	LDA Rig Mobilization - > 100 miles each way	Per Round Trip	$ 10,937.24	Not Applicable
3-14.a.	LDA Rig and Support Vehicles Mobilization - > 100 miles each way	Per Round Trip	Not Applicable	$ 10,900.00
3-15.	Loader/Backhoe Mobilization - ≤ 100 miles each way	Per Round Trip	$ 630.00	$ 580.00
3-16.	Loader/Backhoe Mobilization - > 100 miles each way	Per Round Trip	$ 1,050.00	$ 1,000.00
3-17.	Mini Excavator/Loader (Bobcat™) Mobilization - ≤ 100 miles each way	Per Round Trip	$ 480.00	$ 450.00
3-18.	Mini Excavator/Loader (Bobcat™) Mobilization - > 100 miles each way	Per Round Trip	$ 790.00	$ 620.00
3-19.	Drum Compactor mobilization - ≤ 100 miles each way	Per Round Trip	Not Applicable	$ 500.00
3-20.	Drum Compactor mobilization - > 100 miles each way	Per Round Trip	Not Applicable	$ 850.00
4.	**MEALS AND LODGING**			
4-1.a.	Per Diem - For Travel > 1 Consecutive day (prorated in quarter day increments)-Current State Rate 112.061, F.S. Travel Voucher required and quoted rate should be per person per day.	Per Person, Per Day	$ 80.00	$ 80.00
4-1.b.	Meals, Lodging and Transportation - For Contractor travel for specific meetings or legal proceedings required by Department, hotel and meals may be paid in accordance with Section 112.061, F.S.	Reimbursable*	$ 1.00	$ 1.00
5.	**DRILLING AND BORING**			

Region: North
Contractor: Tetra Tech, Inc.
Contract #: GC826

PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
5-1.a.	Split Spoon Sampling - 2 foot (during boring)	Per Spoon	$ 21.98	Not Applicable
5-1.a.1.	Split Spoon Sampling – 2 foot (during boring) < 50 feet	Per Spoon	Not Applicable	$ 25.00
5-1.a.2.	Split Spoon Sampling – 2 foot (during boring) 50 to 100 feet	Per Spoon	Not Applicable	$ 34.00
5-1.a.3.	Split Spoon Sampling – 2 foot (during boring) > 100 feet	Per Spoon	Not Applicable	$ 43.00
5-1.b.	Sonic Core Sampling - 5 or 10 foot (during boring)	Per Core	$ 140.00	$ 120.00
5-1.c.	DPT Core Sampling - 4 or 5 foot (during boring)	Per Core	$ 16.48	Not Applicable
5-2.	Hand Auger Boring ≤ 10 foot total depth	Per Boring	$ 114.38	$ 114.38
5-3.	Direct Push Boring	Per Foot	$ 14.28	Not Applicable
5-3.a.	Direct Push Technology (DPT) Rig and Equipment	Full Day	Not Applicable	$ 1,648.00
5-4.	Direct Push Boring with Cone Penetrometer Test Probe (CPT)	Per Foot	$ 27.48	Not Applicable
5-5.	Direct Push Boring with Membrane Interface Probe (MIP)	Per Foot	$ 30.78	Not Applicable
5-5.a.	DPT Membrane Interface Probe (MIP) Equipped with PID and ECD (Add-on Cost to DPT Base Rate)	Full Day	Not Applicable	$ 2,148.00
5-6.	HSA or MR Boring, ≤ 6 inch diameter, < 50 foot total depth	Per Foot	$ 26.38	$ 26.30
5-7.	HSA or MR Boring, ≤ 6 inch diameter, 50 to 100 foot total depth	Per Foot	$ 30.78	$ 30.77
5-8.	HSA or MR Boring, ≤ 6 inch diameter, > 100 foot total depth	Per Foot	$ 34.08	$ 34.08
5-9.	HSA or MR Boring, > 6 to 10 inch diameter, < 50 foot total depth	Per Foot	$ 27.48	$ 27.48
5-10.	HSA or MR Boring, > 6 to 10 inch diameter, 50 to 100 foot total depth	Per Foot	$ 30.78	$ 30.78
5-11.	HSA or MR Boring, > 6 to 10 inch diameter, > 100 foot total depth	Per Foot	$ 36.28	$ 36.28
5-12.	HSA or MR Boring, > 10 to 14 inch diameter, < 50 foot total depth	Per Foot	$ 37.38	$ 37.38
5-13.	HSA or MR Boring, > 10 to 14 inch diameter, 50 to 100 foot total depth	Per Foot	$ 40.68	$ 40.68
5-14.	HSA or MR Boring, > 10 to 14 inch diameter, > 100 foot total depth	Per Foot	$ 46.18	$ 46.18
5-15.	Sonic Boring, ≤ 6 inch diameter, < 50 foot total depth	Per Foot	$ 29.68	$ 29.68
5-16.	Sonic Boring, ≤ 6 inch diameter, 50 to 100 foot total depth	Per Foot	$ 31.88	$ 31.88
5-17.	Sonic Boring, ≤ 6 inch diameter, > 100 foot total depth	Per Foot	$ 38.48	$ 38.48
5-18.	Sonic Boring, > 6 to 10 inch diameter, < 50 foot total depth	Per Foot	$ 34.08	$ 34.08
5-19.	Sonic Boring, > 6 to 10 inch diameter, 50 to 100 foot total depth	Per Foot	$ 38.48	$ 38.48

Region: North
Contractor: Tetra Tech, Inc.
Contract #: GC826

PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
5-20.	Sonic Boring, > 6 to 10 inch diameter, > 100 foot total depth	Per Foot	$ 47.28	$ 47.28
5-21.	Sonic Boring, > 10 to 14 inch diameter, < 50 foot total depth	Per Foot	$ 58.28	$ 58.28
5-22.	Sonic Boring, > 10 to 14 inch diameter, 50 to 100 foot total depth	Per Foot	$ 69.28	$ 66.00
5-23.	Sonic Boring, > 10 to 14 inch diameter, > 100 foot total depth	Per Foot	$ 91.28	$ 80.00
6.	**WELL INSTALLATION**			
6-1.	Well Installation - 1 inch diameter	Per Foot	$ 26.42	$ 25.00
6-2.	Well Installation - 2 inch diameter	Per Foot	$ 29.72	Not Applicable
6-2.a.	Well Installation - 2 inch diameter (Vertical)	Per Foot	Not Applicable	$ 30.82
6-2.b.	Well Installation - 2 inch diameter (Horizontal, by trenching, not directional drilling)	Per Foot	Not Applicable	$ 139.35
6-3.	Well Installation - 4 inch diameter	Per Foot	$ 35.22	Not Applicable
6-3.a.	Well Installation - 4 inch diameter (Vertical)	Per Foot	Not Applicable	$ 39.34
6-3.b.	Well Installation - 4 inch diameter (Horizontal, by trenching, not directional drilling)	Per Foot	Not Applicable	$ 145.95
6-4.	Well Installation - 6 inch diameter	Per Foot	$ 44.02	$ 38.00
6-5.	Surface Casing - 6 inch diameter	Per Foot	$ 27.52	$ 27.52
6-6.	Surface Casing - 8 inch diameter	Per Foot	$ 37.42	$ 35.50
6-7.	Surface Casing - 10 inch diameter	Per Foot	$ 44.02	$ 44.02
6-8.	Surface Casing - 12 inch diameter	Per Foot	$ 90.00	$ 60.00
6-9.a.	Additional Well Screen > 20 feet - 1 inch diameter	Per Foot	$ 11.50	$ 7.00
6-9.b.	Additional Well Screen > 20 feet - 2 inch diameter	Per Foot	$ 13.95	$ 9.00
6-9.c.	Additional Well Screen > 20 feet - 4 inch diameter	Per Foot	$ 12.26	$ 10.00
6-9.d.	Additional Well Screen > 20 feet - 6 inch diameter	Per Foot	$ 19.82	$ 12.00
6-10.	Above Grade Well Completion	Per Well	$ 390.49	$ 390.49
6-11.	Installation of Well Vault - 2 x 2 x 2 foot	Per Vault	$ 664.39	$ 550.00
6-12.	Installation of Well Vault - 4 x 4 x 2 foot	Per Vault	$ 1,471.79	$ 1,471.79
6-13.	Well Redevelopment	Per Well	Not Applicable	$ 127.89
6-14.	Removal and Reinstallation of 8-inch Manhole and well pad when a well pad/manhole has been damaged or destroyed	Per Well	Not Applicable	$ 232.39

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6-15.	Removal and Reinstallation of 12-inch Manhole and well pad when a well pad/manhole has been damaged or destroyed	Per Well	Not Applicable	$ 279.14
7.	**WELL ABANDONMENT**			
7-1.	Grout and Abandon Well, 1 to 2 inch diameter	Per Foot	$ 20.25	$ 18.00
7-2.	Grout and Abandon Well, > 2 to 4 inch diameter	Per Foot	$ 23.50	$ 20.00
7-3.	Grout and Abandon Well, > 4 to 6 inch diameter	Per Foot	$ 28.18	$ 25.00
7-4.	Grout and Abandon Well, > 6 inch diameter	Per Foot	$ 33.68	$ 30.00
7-5.	Removal of Well Vault - 2 x 2 x 2 foot	Per Vault	$ 497.30	$ 400.00
7-6.	Removal of Well Vault - 4 x 4 x 2 foot	Per Vault	$ 814.50	$ 700.00
7-7	Removal of Well Pad and Manhole	Per Well	Not Applicable	$ 159.40
8.	**SAMPLE COLLECTION AND FIELD TESTING**			
8-1.	Monitoring Well Sampling with Water Level, ≤ 100 foot depth	Per Well	$ 259.00	$ 230.00
8-2.	Monitoring Well Sampling with Water Level, > 100 foot depth	Per Well	$ 335.00	$ 240.00
8-3.	Domestic Water Well Sampling	Per Well	$ 154.00	$ 100.00
8-4.	Other Water Sampling	Per Sample	$ 140.00	$ 100.00
8-5.	Free Product Sample Collection	Per Sample	$ 128.00	$ 90.00
8-6.	Soil/Sediment Sample Collection	Per Sample	$ 143.00	$ 75.00
8-7.	Water Level or Free Product Gauging	Per Well	$ 29.00	$ 26.00
8-8.	Free Product Gauging & Bailing	Per Well	$ 95.69	$ 95.69
8-9.	Vapor/Ambient Air Sample Collection - Passive Dosimeter, Sorbent Tube, Tedlar™ Bag (or Equivalent)	Per Sample	$ 85.00	$ 65.00
8-10.	Vapor/Ambient Air Sample Collection - SUMMA™ Canister (or Equivalent)	Per Sample	$ 149.00	$ 85.00
8-11.	Electronic Data Deliverables (EDD)	Per Sampling Event	Not Applicable	$ 160.00
8-12.	Survey Latitude/Longitude of Existing Monitor Wells	Per Well	Not Applicable	$ 25.00
8-13.	Survey Latitude/Longitude of New Monitor Wells	Per Well	Not Applicable	$ 25.00

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8-14	Encore (25 gram) for SPLP Soil Sample Collection: [Per Encore]. The cost will include the 25 gram Encore samples submitted to the laboratory for SPLP testing and the 25 gram Encore samples collected in the field but not submitted to the laboratory for testing (discarded).	Per Sample	Not Applicable	$ 20.00
9.	**LABORATORY ANALYSIS**			
9.A.	**SOIL/SEDIMENT ANALYSIS**			
9-1.	Soil, Used Oil/Unknown Product Group-Table D of Ch. 62-780, F.A.C., except for non-Priority Pollutant Organics (Multiple Methods)	Per Sample	$ 530.00	$ 425.00
9-2.	Soil, BTEX + MTBE (EPA 8021 or EPA 8260)	Per Sample	$ 51.00	$ 45.00
9-3.	Soil, Volatile Organic Halocarbons (EPA 8021 or EPA 8260)	Per Sample	$ 64.00	$ 60.00
9-4.	Soil, BTEX + MTBE + VOHs (EPA 8021 or EPA 8260)	Per Sample	$ 96.00	$ 76.00
9-5.	Soil, Polycyclic Aromatic Hydrocarbons (EPA 8270 or EPA 8310)	Per Sample	$ 102.00	$ 86.00
9-6.	Soil, Priority Pollutant Volatile Organics (EPA 8260)	Per Sample	$ 112.00	$ 87.00
9-7.	Soil, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables (EPA 8270 list [e.g., EPA 8081/8082 + EPA 8270])	Per Sample	$ 312.00	$ 275.00
9-8.	Soil, Total Recoverable Petroleum Hydrocarbons (FL-PRO)	Per Sample	$ 79.00	$ 67.00
9-8.a.	Soil, TRPH Fractionation (MADEP-EPH/VPH Method or TPHCWG Direct Method)	Per Sample	Not Applicable	$ 254.00
9-9.	Soil, PCBs [or Aroclors] (EPA 8082)	Per Sample	$ 70.00	$ 61.00
9-10.	Soil, 8 RCRA Metals (EPA 6010 or EPA 6020 [Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, Silver] and EPA 6020 or EPA 7471 [Mercury])	Per Sample	$ 104.00	$ 78.00
9-11.	Soil, Arsenic (EPA 6010 or EPA 6020)	Per Sample	$ 13.00	$ 12.50
9-12.	Soil, Cadmium (EPA 6010 or EPA 6020)	Per Sample	$ 13.00	$ 12.50
9-13.	Soil, Chromium (EPA 6010 or EPA 6020)	Per Sample	$ 13.00	$ 12.50
9-14.	Soil, Lead (EPA 6010 or EPA 6020)	Per Sample	$ 13.00	$ 12.50
9-15.	Soil, Toxicity Characteristic Leaching Procedure-Extraction Only (EPA 1311)	Per Sample	$ 65.00	$ 55.00
9-16.	Soil, Synthetic Precipitation Leaching Procedure-Extraction Only (EPA1312)	Per Sample	$ 72.00	$ 61.00

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PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
9-17.	Soil, Organic Carbon, Total (EPA 9060 or Walkey-Black)	Per Sample	$ 55.00	$ 45.00
9-18.	Soil, Dry Bulk Density (ASTM D1556-07, ASTM D2167-08, ASTM D2922-01, -04, -04e, -96e1 or ASTM D2937-10)	Per Sample	$ 58.58	$ 58.58
9-19.	Soil, Moisture Content (ASTM D2216-10)	Per Sample	$ 17.00	$ 13.00
9-20.	Soil, Texture, (See Gee 7 Bauder [1966])	Per Sample	$ 83.88	$ 70.00
9-21.	Soil, GC/MS Full Scan, Alkanes, Isoalkanes, Cycloalkanes, Aromatics, Bicyclane, Sterane, and Terpane Biomarkers (ASTM D5739 High Resolution GC/MS)	Per Sample	$ 368.78	$ 300.00
9-22.	Soil, Gasoline Hydrocarbon Composition, Gasoline PIANO (paraffins, isoparaffins, aromatics, naphthenes and olefins) (EPA 8260Mod, High Resolution GC/MS)	Per Sample	$ 433.68	$ 415.00
9-23.	Soil, 5 Fuel Oxygenates, MTBE, DIPE, TAME, ETBE and TBA (EPA 8260Mod, High Resolution GC/MS)	Per Sample	$ 132.28	$ 81.00
9-24.	Soil, C10-C40 Alkane Fingerprint, N-Alkanes and Isoalkanes (ASTM D3328 GC/MS)	Per Sample	$ 284.08	$ 240.00

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9.B.	**WATER ANALYSIS**			
9-25.	Water, Gasoline/Kerosene Analytical Group-Table C of Ch. 62-780, F.A.C. (Multiple Methods)	Per Sample	$ 311.58	$ 260.00
9-26.	Water, Used Oil/Unknown Product Group-Table D of Ch. 62-780, F.A.C., except for non-Priority Pollutant Organics (Multiple Methods)	Per Sample	$ 515.08	$ 420.00
9-27.	Water, BTEX + MTBE (EPA 602, EPA 624, EPA 8021 or EPA 8260)	Per Sample	$ 49.00	$ 45.00
9-28.	Water, Volatile Organic Halocarbons, except EDB (EPA 8021 or EPA 8260)	Per Sample	$ 62.00	$ 60.00
9-29.	Water, BTEX + MTBE + VOHs (EPA 601/602, EPA 624, EPA 6021 or EPA 8260)	Per Sample	$ 95.00	$ 77.00
9-30.	Water, Polycyclic Aromatic Hydrocarbons, including 1-methylnaphthalene + 2-methylnaphthalene (EPA 610 [HPLC], EPA 625, EPA 8270 or EPA 8310)	Per Sample	$ 100.00	$ 87.00
9-31.	Water, EDB [1,2-dibromoethane or ethylene dibromide] (EPA 504.1 or EPA 8011)	Per Sample	$ 45.00	$ 42.00
9-31.a.	Water, EDB [1,2-dibromoethane or ethylene dibromide] (EPA 8260 SIM)	Per Sample	Not Applicable	$ 56.00
9-32.	Water, Priority Pollutant Volatile Organics [for NPDES purposes only] (EPA 624)	Per Sample	$ 110.00	$ 81.00
9-33.	Water, Priority Pollutant Volatile Organics (EPA 8260)	Per Sample	$ 109.00	$ 87.00
9-34.	Water, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables [for NPDES purposes only] (EPA 625 list [e.g., EPA 608 + EPA 625])	Per Sample	$ 325.00	$ 225.00
9-35.	Water, Priority Pollutant Extractable Organics-Base Neutral and Acid Extractables (EPA 8270 list [e.g., EPA 8081/8082 + EPA 8270 or EPA 608 + EPA 8270)	Per Sample	$ 324.00	$ 270.00
9-36.	Water, Total Recoverable Petroleum Hydrocarbons (FL-PRO)	Per Sample	$ 77.00	$ 70.00
9-37.	Water, PCBs [or Aroclors] (EPA 608 or EPA 8082)	Per Sample	$ 70.00	$ 62.00
9-38.	Water, Arsenic, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-39.	Water, Cadmium, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-40.	Water, Chromium, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-41.	Water, Lead, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00

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9-41.a.	Water, Dissolved Lead (includes filter appropriate to sample method - EPA 200.7, 200.9, 6010B, or 7380)	Per Sample	Not Applicable	$ 30.00
9-42.	Water, Mercury, Total (EPA 245.1, EPA 6020 or EPA 7470)	Per Sample	$ 21.00	$ 18.00
9-43.	Water, Calcium, Total (EPA 200.7, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-44.	Water, Iron, Total (EPA 200.7, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-44.a.	Water, Dissolved Iron (includes filter appropriate to sample method - EPA 200.7, 200.9, 6010B, or 7380)	Per Sample	Not Applicable	$ 30.00
9-45.	Water, Magnesium, Total (EPA 200.7, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-46.	Water, Manganese, Total (EPA 200.7, EPA 200.8, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-47.	Water, Potassium, Total (EPA 200.7, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-48.	Water, Sodium, Total (EPA 200.7, EPA 6010 or EPA 6020)	Per Sample	$ 12.00	$ 12.00
9-49.	Water, Alkalinity [as CaCO3] (EPA 310.2 or SM 2320 B)	Per Sample	$ 15.00	$ 14.00
9-50.	Water, Ammonia [as N] (EPA 350.1, SM 4500-NH3 C, SM 4500-NH3 D, SM 4500-NH3 G or SM 4500-NH3 H)	Per Sample	$ 19.00	$ 18.00
9-51.	Water, Chloride (EPA 300.0, EPA 9056, EPA 9251, EPA 9053, SM 4500Cl B, SM 4500Cl C or SM 4500Cl E)	Per Sample	$ 15.00	$ 15.00
9-52.	Water, Hardness, Total [as CaCO3] (SM 2340 B or SM 2340 C)	Per Sample	$ 16.00	$ 15.00
9-53.	Water, Nitrate [as N] (EPA 300.0 or EPA 353.2)	Per Sample	$ 16.00	$ 16.00
9-54.	Water, Nitrate-Nitrite [as N] (EPA 300.0, EPA 353.2, SM 4500-NO3 E or SM 4500-NO3 F)	Per Sample	$ 17.00	$ 17.00
9-55.	Water, Nitrite [as N] (EPA 300.0, EPA 300.1, SM 4500-NO2 B or SM 4500-NO3 F)	Per Sample	$ 16.00	$ 16.00
9-56.	Water, Organic Carbon, Total (SM 5310 B, SM 5310 C or EPA 9060)	Per Sample	$ 26.00	$ 24.00
9-57.	Water, Orthophosphate [as P] (EPA 300.0, EPA 300.1, EPA 365.1, EPA 365.3, EPA 9056, SM 4500-PE or SM 4500-PF)	Per Sample	$ 19.00	$ 17.00
9-58.	Water, Residue-filterable [Total Dissolved Solids] (SM 2540 C)	Per Sample	$ 13.00	$ 13.00
9-59.	Water, Residue-nonfilterable [Total Suspended Solids] (SM 2540 D)	Per Sample	$ 13.00	$ 13.00

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9-60.	Water, Sulfate (ASTM D516-02, ASTM D516-90, EPA 300.0, EPA 300.1, EPA 375.2, EPA 9038, EPA 9056 or SM 4500-SO4 C)	Per Sample	$ 15.00	$ 15.00
9-61.	Water, Heterotrophic Plate Count (SM 9215 B)	Per Sample	$ 49.78	$ 48.00
9-62.	Water, Acute Bioassay-96 Hour, Freshwater, Vertebrate/Invertebrate [Vertebrate: Pimephales promelas or Cyprinella leedsi/Invertebrate: Ceriodaphnia dubia] (EPA 2000.0/2002.0)	Per Sample	$ 990.00	$ 950.00
9-63.	Water, Acute Bioassay-96 Hour, Estuarine + Marine, Vertebrate/Invertebrate [Vertebrate: Menidia beryllina, Meridia menidia or Menida peninsulae/Invertebrate: Mysidopsis bahia] (EPA 2006.0/2007.0)	Per Sample	$ 944.08	$ 940.00
9-64.	Water, GC/MS Full Scan, Alkanes, Isoalkanes, Cycloalkanes, Aromatics, Bicyclane, Sterane, and Terpane Biomarkers (ASTM D5739 High Resolution GC/MS)	Per Sample	$ 368.78	$ 365.00
9-65.	Water, Gasoline Hydrocarbon Composition, Gasoline PIANO [paraffins, isoparaffins, aromatics, naphthenes and olefins] (EPA 8260Mod, High Resolution GC/MS)	Per Sample	$ 433.68	$ 400.00
9-66.	Water, 5 Fuel Oxygenates, MTBE, DIPE, TAME, ETBE and TBA (EPA 8260Mod, High Resolution GC/MS)	Per Sample	$ 133.38	$ 110.00
9-67.	Water, C10-C40 Alkane Fingerprint, N-Alkanes and Isoalkanes (ASTM D3328 GC/MS)	Per Sample	$ 276.38	$ 250.00
9-78.	Water, BTEX/MTBE + Naphthalene (EPA 8260)	Per Sample	Not Applicable	$ 67.00
9-79.	Water, EDC [1,2-dichloroethane] (EPA Method 8021 or 8260)	Per Sample	Not Applicable	$ 45.00
9-80.	Water, Methane (EPA SOP RSK-175)	Per Sample	Not Applicable	$ 95.00
9.C.	**AIR ANALYSIS**			
9-68.	Air, Total Petroleum Hydrocarbons (EPA Method 18 or TO-3)	Per Sample	$ 102.00	$ 95.00
9-69.	Air, Volatile Organic Aromatics (EPA Method TO-15)	Per Sample	$ 255.00	$ 220.00
9-70.	Air, Polycyclic Aromatic Hydrocarbons (EPA Method TO-13)	Per Sample	$ 274.00	$ 225.00
9-71.	Air, Volatile Organic Compounds (EPA Method TO-17)	Per Sample	$ 284.00	$ 265.00

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9.D.	**PRODUCT ANALYSIS**			
9-72.	Product, C3-C44 Hydrocarbon Fingerprint, Gasoline PIANO [paraffins, isoparaffins, aromatics, naphthenes and olefins], alkanes and isoalkanes (ASTM D3328 High Resolution GC/FID)	Per Sample	$ 380.00	$ 310.00
9-73.	Product, GC/MS Full Scan, alkanes, isoalkanes, cycloalkanes, aromatics, bicyclane, sterane, and terpane biomarkers (ASTM D5739 High Resolution GC/MS)	Per Sample	$ 384.12	$ 384.12
9.E.	**OTHER ANALYSIS**			
9-74.	Other Analysis, Not Otherwise Specified	Reimbursable*	$ 1.00	$ 1.00
9-75.	Additional Laboratory % Surcharge authorized in the ATC contract for 7 Day Turnaround.	Percent Surcharge	$ -	$ -
9-76.	Additional Laboratory % Surcharge authorized in the ATC contract for 3 Day Turnaround.	Percent Surcharge	$ 0.50	$ 0.50
9-77.	Additional Laboratory % Surcharge authorized in the ATC contract for 1 Day Turnaround.	Percent Surcharge	$ 1.00	$ 1.00
10.	**SOIL SOURCE REMOVAL RELATED**			
10-1.	Sheet Piling for ≤ 20 feet deep excavation (per square foot)	Per Sq. Foot/Day	$ 66.00	Not Applicable
10-1.a	Sheet Piling Installation for ≤ 20 feet deep Excavation	Per Sq. Foot	Not Applicable	$ 18.48
10.1.b	Sheet Piling Rental for ≤ 20 feet deep Excavation	Per Sq. Foot/Day	Not Applicable	$ 5.50
10.1.c	Sheet Piling Rental for ≤ 20 feet deep Excavation	Per Sq. Foot/Week	Not Applicable	$ 10.00
10.1.d	Sheet Piling Rental for ≤ 20 feet deep Excavation	Per Sq. Foot/Month	Not Applicable	$ 17.79
10-2.	Sheet Piling for ≤ 20 feet deep excavation (per square foot)	Per Sq. Foot/Week	$ 66.00	Not Applicable
10-2.a	Sheet Piling Installation for > 20 feet deep Excavation	Per Sq. Foot	Not Applicable	$ 24.53
10.2.b	Sheet Piling Rental for > 20 feet deep Excavation	Per Sq. Foot/Day	Not Applicable	$ 5.50
10.2.c	Sheet Piling Rental for > 20 feet deep Excavation	Per Sq. Foot/Week	Not Applicable	$ 15.10
10.2.d	Sheet Piling Rental for > 20 feet deep Excavation	Per Sq. Foot/Month	Not Applicable	$ 17.68

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10-3.	Sheet Piling for ≤ 20 feet deep excavation (per square foot)	Per Sq. Foot/Month	$ 70.00	Not Applicable
10-4.	Sheet Piling for > 20 feet deep excavation (per square foot)	Per Sq. Foot/Day	$ 88.33	Not Applicable
10-5.	Sheet Piling for > 20 feet deep excavation (per sqyuare foot)	Per Sq. Foot/Week	$ 90.53	Not Applicable
10-6.	Sheet Piling for > 20 feet deep excavation (per square foot)	Per Sq. Foot/Month	$ 94.93	Not Applicable
10-7.	Conventional Soil Excavation and Loading ≤ 300 cubic yards	Per Cubic Yard	$ 38.40	$ 38.40
10-8.	Conventional Soil Excavation and Loading > 300 cubic yards	Per Cubic Yard	$ 32.90	$ 32.90
10-9.	LDA Excavation and Loading Without Casing ≤ 300 cubic yards	Per Cubic Yard	$ 115.40	$ 115.40
10-10.	LDA Excavation and Loading Without Casing > 300 cubic yards	Per Cubic Yard	$ 100.00	$ 100.00
10-11.a.	LDA Excavation and Loading With Surface Casing ≤ 300 cubic yards	Per Cubic Yard	$ 141.80	$ 141.80
10-11.b.	LDA Excavation and Loading With Driven Casing ≤ 300 cubic yards	Per Cubic Yard	$ 202.30	$ 202.30
10-12.a.	LDA Excavation and Loading With Surface Casing > 300 cubic yards	Per Cubic Yard	$ 152.00	$ 152.00
10-12.b.	LDA Excavation and Loading With Driven Casing > 300 cubic yards	Per Cubic Yard	$ 152.80	$ 152.80
10-13.	Flowable Fill Concrete and Installation	Per Cubic Yard	$ 95.60	$ 95.60
10-14.	Clean Backfill Material, Compaction and Testing (includes transport) ≤ 300 cubic yards	Per Cubic Yard	$ 43.00	$ 43.00
10-15.	Clean Backfill Material, Compaction and Testing (includes transport) > 300 cubic yards	Per Cubic Yard	$ 40.00	$ 40.00
10-15.a.	Clean Overburden Used As Backfill, Compaction and Testing ≤ 300 cubic yards	Per Cubic Yard	Not Applicable	$ 26.51
10-15.b.	Clean Overburden Used As Backfill, Compaction and Testing > 300 cubic yards	Per Cubic Yard	Not Applicable	$ 18.49
10-16.	Pea Gravel	Per Ton	$ 67.00	$ 67.00
10-17.	#57 Stone	Per Ton	$ 52.70	$ 52.70
10-18.	Dewatering System, up to 12 well points (includes installation)	Per Day	$ 7,900.00	$ 4,750.00
10-19.	Additional Dewatering System Well Points (2) (includes installation)	Per Day	$ 311.42	$ 311.42
10-20.	Dewatering System, up to 12 well points (includes installation)	Per Week	$ 11,981.08	$ 9,000.00
10-21.	Additional Dewatering System Well Points (2) (includes installation)	Per Week	$ 400.52	$ 400.52
10-22.	Dewatering System, up to 12 well points (includes installation)	Per Month	$ 19,316.85	$ 17,500.00
10-23.	Additional Dewatering System Well Points (2) (includes installation)	Per Month	$ 573.22	$ 573.22

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11.	**PETROLEUM STORAGE TANK REMOVAL AND DISPOSAL**			
11-1.	Remove and Dispose Petroleum Storage Tank - ≤ 1,000 gal. capacity	Per Tank	$ 6,170.52	$ 5,500.00
11-2.	Remove and Dispose Petroleum Storage Tank - > 1,000 to 5,000 gal. capacity	Per Tank	$ 7,657.78	$ 6,500.00
11-3.	Remove and Dispose Petroleum Storage Tank - > 5,000 to 10,000 gal. capacity	Per Tank	$ 11,289.40	$ 9,000.00
11-4.	Remove and Dispose Petroleum Storage Tank - > 10,000 gal. capacity	Per Tank	$ 13,315.60	$ 12,000.00
12.	**DEBRIS, WASTE AND PRODUCT REMOVAL AND DISPOSAL**			
12-1.	Removal and Loading of Asphalt and/or Concrete - up to 4 inch thickness	Per Square Foot	$ 4.75	$ 4.25
12-2.	Additional Removal/Loading Cost for Concrete - > 4 inch thickness	Per Square Foot	$ 5.29	$ 3.25
12-3.	Loading, Transport and Disposal/Recycle Clean Overburden	Per Ton	$ 60.38	$ 54.00
12-4.	Transport and Disposal of Clean Concrete	Per Ton	$ 43.00	$ 40.00
12-5.	Transport and Disposal of Mixed Debris	Per Ton	$ 49.29	$ 49.29
12-6.	Transport and Disposal of Petroleum Impacted Soil (includes drum)	Per Drum	$ 193.39	$ 180.00
12-7.	Transport Petroleum Impacted Soil (bulk) ≤ 100 miles	Per Ton	$ 26.19	$ 25.75
12-8.	Transport Petroleum Impacted Soil (bulk) > 100 miles	Per Ton	$ 36.09	$ 36.00
12-9.	Disposal of Petroleum Impacted Soil at a Landfill (bulk) ≤ 450 tons	Per Ton	$ 32.79	$ 32.79
12-10.	Disposal of Petroleum Impacted Soil at a Landfill (bulk) > 450 tons	Per Ton	$ 32.79	$ 32.79
12-11.	Disposal of Petroleum Impacted Soil at a Thermal Treatment Facility (bulk) ≤ 450 tons	Per Ton	$ 34.99	$ 34.99
12-12.	Disposal of Petroleum Impacted Soil at a Thermal Treatment Facility (bulk) > 450 tons	Per Ton	$ 32.79	$ 32.79
12-13.	Transport and Disposal of Petroleum Contact Water (includes drum)	Per Drum	$ 201.09	$ 185.00
12-14.	Transport and Disposal of Petroleum Contact Water (bulk)	Per Gallon	$ 1.91	$ 1.50
12-15.	Transport and Disposal of Petroleum Product (includes drum)	Per Drum	$ 213.82	$ 190.00
12-16.	Transport and Disposal of Petroleum Product (bulk)	Per Gallon	$ 1.65	$ 1.30
12-17.	Delivery, Pick Up and Rental of 20 Cubic Yard Roll-Off Container	Per Week	Not Applicable	$ 799.00
12-18.	Additional Rental of 20 Cubic Yard Roll-Off Container	Per Week	Not Applicable	$ 276.00
13.	**RESURFACING**			
13-1.	Asphalt Paving - 2 inch thickness (includes sub-base)	Per Square Foot	$ 9.05	$ 8.00

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13-2.	Asphalt Paving - additional 1 inch thickness	Per Square Foot	$ 3.61	$ 2.50
13-3.	Concrete Paving - 4 inch thickness (includes sub-base)	Per Square Foot	$ 9.69	$ 8.00
13-4.	Concrete Paving - additional 1 inch thickness	Per Square Foot	$ 3.15	$ 3.00
13-5.	Crushed Lime Rock Cover - 2 inch thickness	Per Square Foot	$ 4.19	$ 3.00
13-6.	Grass - Sod	Per Square Foot	$ 2.00	$ 2.00
13-7.	Grass - Seed and Mulch	Per Square Foot	$ 1.00	$ 1.00
14.	**IN-SITU INJECTION**			
14-1.	Direct Push Boring with In-Situ Injection	Per Foot	$ 35.00	$ 30.00
14-2.	In-Situ Injection Into Existing Well/Treatment Point	Per Injection Point	$ 490.00	$ 375.00
14-3.	Materials to be Injected	Reimbursable*	$ 1.00	$ 1.00
14-4.	Groundwater Injection System (not by direct push)	Per Week	Not Applicable	$ 7,091.27
14-5.	Groundwater Injection System (not by direct push)	Per Month	Not Applicable	$ 14,658.98

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15.	**REMEDIAL ACTION CONSTRUCTION**			
15.A.	**TRENCHING**			
15-1.	Trenching and Installation of Plumbing (and Electrical) Lines in Trench - up to 8 plumbing lines	Per Linear Foot	$ 33.45	Not Applicable
15-1.a.	Trenching and Installation of 1-10 Plumbing (and Electrical) Lines in Trench	Per Linear Foot of Trench	Not Applicable	$ 80.90
15-1.b.	Trenching and Installation of 11 - 20 Lines	Per Linear Foot of Trench	Not Applicable	$ 98.81
15-1.c.	Trenching and Installation of 21 - 30 Lines	Per Linear Foot of Trench	Not Applicable	$ 108.16
15-1.d.	Trenching and Installation of Additional 1-10 Lines Greater Than 30 Lines	Per Linear Foot of Trench	Not Applicable	$ 74.61
15-2.	Trenching and Installation - Additional 2 plumbing lines	Per Linear Foot	$ 9.79	Not Applicable
15-2.a.	Installation of Plumbing (and Electrical) Lines Above Ground: Per Linear Foot of Piping. Electrical lines are not counted in determination of costs.	Per Foot	Not Applicable	$ 14.00
15-3.	Plumbing and Electrical Materials/Equipment Installed in Trench (If FDEP authorizes, submit quote(s) with Change Order)	Reimbursable*	$ 1.00	$ 1.00
15-3.a.	Traffic Bearing Trench Plates (materials)	Reimbursable*	Not Applicable	$ 1.00
15-3.b.	Infiltration Gallery Installation	Reimbursable*	Not Applicable	$ 1.00
15.B.	**REMEDIATION SYSTEM INTEGRATION AND STARTUP**			
15-4.	System Installation/Integration/Startup - 1 technology component - up to 8 recovery/treatment points	Per Integration / Startup	$ 7,413.67	Not Applicable
15-4.a	System Installation/Integration/Startup - 1 technology component - 1-10 recovery/treatment points	Per Startup	Not Applicable	$ 19,000.00

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15-4.b	System Installation/Integration/Startup - 1 technology component - 11-20 recovery/treatment points	Per Startup	Not Applicable	$ 22,742.00
15-4.c	System Installation/Integration/Startup - 1 technology component - 21-30 recovery/treatment points	Per Startup	Not Applicable	$ 27,251.00
15-4.d	System Installation/Integration/Startup - 1 technology component - 1-10 additional recovery/treatment points greater than 30. This item is used in conjunction with 15.4.c when needed.	Per Startup	Not Applicable	$ 6,644.56
15-5.	System Installation/Integration/Startup – Addition of 1 technology component	Per Additional Tech Component	$ 3,798.74	$ 2,750.00
15-6.	System Installation/Integration/Startup – Addition of 2 recovery/treatment points	Per 2 Recovery / Treatment Points	$ 1,732.61	Not Applicable
15-7.	Compound Construction/fencing (materials)	Reimbursable*	Not Applicable	$ 1.00
15-8.	Utility Drop	Reimbursable*	Not Applicable	$ 1.00
15-9.	Utility Connection	Reimbursable*	Not Applicable	$ 1.00
15-10.	Utility Disconnect	Reimbursable*	Not Applicable	$ 1.00
16.	**REMEDIAL ACTION - PACKAGED WORK SCOPES (Including Remediation System**			
16.A.	**PILOT TEST PACKAGES (Including Remediation System Equipment)**			
16-1.	Groundwater Recovery System Pilot Test - 8 hours	Per Test	$ 5,642.18	$ 4,750.00
16-2.	Groundwater Recovery System Pilot Test - Additional Time	Per 2 Hrs	$ 825.00	$ 600.00
16-3.	Air Sparging or Biosparging Pilot Test - 8 hours	Per Test	$ 4,514.68	$ 3,500.00
16-4.	Air Sparging or Biosparging Pilot Test - Additional Time	Per 2 Hrs	$ 725.00	$ 600.00
16-5.	Vapor Extraction Pilot Test - 8 hours	Per Test	$ 4,830.00	$ 4,000.00
16-6.	Vapor Extraction Pilot Test - Additional Time	Per 2 Hrs	$ 750.00	$ 600.00
16-7.	Vapor Extraction/Aquifer Pumping Test - 8 hours	Per Test	$ 6,010.00	$ 4,500.00
16-8.	Vapor Extraction/Aquifer Pumping Test - Additional Time	Per 2 Hrs	$ 825.00	$ 600.00
16-9.	Air Sparging/Vapor Extraction Pilot Test - 8 hours	Per Test	$ 5,640.00	$ 4,500.00

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16-10.	Air Sparging/Vapor Extraction Pilot Test - Additional Time	Per 2 Hrs	$ 775.00	$ 600.00
16-11.	Multi-Phase Extraction Pilot Test - 8 hours	Per Test	$ 6,085.00	$ 5,000.00
16-12.	Multi-Phase Extraction Pilot Test - Additional Time	Per 2 Hrs	$ 815.00	$ 675.00
16-13.	Air Sparging/Multiphase Extraction Pilot Test - 8 hours	Per Test	Not Applicable	$ 4,955.31
16-14.	Air Sparging/Multiphase Extraction Pilot Test - Additional Time	Per 2 Hours	Not Applicable	$ 925.00
16.B.	**SHORT TERM/EPISODIC SYSTEM OPERATION PACKAGES (Including Remediation**			
16-17.	Groundwater Treatment System Package - Medium	Per Day	$ 7,500.00	$ 4,500.00
16-18.	Groundwater Treatment System Package - Medium	Per Week	$ 16,900.00	$ 12,000.00
16-19.	Air Sparge System Package - Medium	Per Day	$ 3,245.56	$ 3,000.00
16-20.	Air Sparge System Package - Medium	Per Week	$ 7,840.66	$ 7,200.00
16-21.	AS/SVE System Package - Medium	Per Day	$ 4,216.86	$ 3,750.00
16-22.	AS/SVE System Package - Medium	Per Week	$ 6,329.26	$ 6,329.26
16-23.	MPE System Package - Medium	Per Day	$ 5,495.06	$ 4,000.00
16-24.	MPE System Package - Medium	Per Week	$ 10,135.33	$ 9,500.00
16-25.	AS/MPE System Package - Medium	Per Day	Not Applicable	$ 6,614.47
16-26.	AS/MPE System Package - Medium	Per Week	Not Applicable	$ 13,531.00
16-27.	SVE System Package - Medium	Per Day	Not Applicable	$ 4,400.00
16-28.	SVE System Package - Medium	Per Week	Not Applicable	$ 9,341.00
17.	**MONTHLY REMEDIATION SYSTEM O&M PACKAGED WORK SCOPES (Excluding Remediation System Equipment)**			
17-1.	System O&M Package - Small	Per Month	$ 2,900.00	$ 2,700.00
17-2.	System O&M Package - Medium	Per Month	$ 3,490.00	$ 3,100.00
17-3.	System O&M Package - Large	Per Month	$ 4,040.00	$ 3,600.00
17-4.	System O&M Package - Extra Large	Per Month	$ 4,750.00	$ 4,100.00
17-5.	Supplemental System O&M Package - Add Thermox or Catox Treatment	Per Month	$ 570.00	$ 450.00
18.	**REMEDIAL ACTION SYSTEM/EQUIPMENT USE (Equipment Only, Excluding O&M)**			

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18-1.	Medium Holding Tank - 2,000 to 6,000 gal. capacity - Short Term ≤ 6 mos.	Per Month	$ 630.00	$ 400.00
18-2.	Medium Holding Tank - 2,000 to 6,000 gal. capacity - Long Term > 6 mos.	Per Month	$ 600.00	$ 325.00
18-3.	Large Holding Tank > 6,000 to 10,000 gal. capacity - Short Term ≤ 6 mos.	Per Month	$ 1,000.00	$ 1,000.00
18-4.	Large Holding Tank > 6,000 to 10,000 gal. capacity - Long Term > 6 mos.	Per Month	$ 700.00	$ 700.00
18-5.	Groundwater Treatment System - Stand Alone Small - Short Term ≤ 6 mos.	Per Month	$ 7,480.00	$ 6,500.00
18-6.	Groundwater Treatment System - Stand Alone Small - Long Term > 6 mos.	Per Month	$ 6,680.00	$ 5,000.00
18-7.	Groundwater Treatment System - Stand Alone Medium - Short Term ≤ 6 mos.	Per Month	$ 11,025.00	$ 9,900.00
18-8.	Groundwater Treatment System - Stand Alone Medium - Long Term > 6 mos.	Per Month	$ 10,035.00	$ 6,500.00
18-9.	Groundwater Treatment System - Stand Alone Large - Short Term ≤ 6 mos.	Per Month	$ 15,945.00	$ 14,000.00
18-10.	Groundwater Treatment System - Stand Alone Large - Long Term > 6 mos.	Per Month	$ 14,350.00	$ 9,000.00
18-11.	Air Sparge System - Small - Short Term ≤ 6 mos.	Per Month	$ 3,230.00	$ 3,000.00
18-12.	Air Sparge System - Small - Long Term > 6 mos.	Per Month	$ 2,550.00	$ 2,300.00
18-13.	Air Sparge System - Medium - Short Term ≤ 6 mos.	Per Month	$ 3,635.00	$ 3,300.00
18-14.	Air Sparge System - Medium - Long Term > 6 mos.	Per Month	$ 3,015.00	$ 2,500.00
18-15.	Air Sparge System - Large - Short Term ≤ 6 mos.	Per Month	$ 5,325.00	$ 5,000.00
18-16.	Air Sparge System - Large - Long Term > 6 mos.	Per Month	$ 4,240.00	$ 3,400.00
18-17.	AS/SVE System - Small - Short Term ≤ 6 mos.	Per Month	$ 6,864.00	$ 6,000.00
18-18.	AS/SVE System - Small - Long Term > 6 mos.	Per Month	$ 4,460.00	$ 4,000.00
18-19.	AS/SVE System - Medium - Short Term ≤ 6 mos.	Per Month	$ 8,010.00	$ 7,000.00
18-20.	AS/SVE System - Medium - Long Term > 6 mos.	Per Month	$ 5,275.00	$ 4,750.00
18-21.	AS/SVE System - Large - Short Term ≤ 6 mos.	Per Month	$ 10,820.68	$ 8,500.00
18-22.	AS/SVE System - Large - Long Term > 6 mos.	Per Month	$ 7,130.00	$ 6,250.00
18-23.	MPE System - Small - Short Term ≤ 6 mos.	Per Month	$ 5,275.00	$ 4,500.00
18-24.	MPE System - Small - Long Term > 6 mos.	Per Month	$ 4,480.00	$ 3,300.00
18-25.	MPE System - Medium - Short Term ≤ 6 mos.	Per Month	$ 6,490.00	$ 6,000.00
18-26.	MPE System - Medium - Long Term > 6 mos.	Per Month	$ 5,300.00	$ 4,500.00
18-27.	MPE System - Large - Short Term ≤ 6 mos.	Per Month	$ 8,360.00	$ 7,500.00
18-28.	MPE System - Large - Long Term > 6 mos.	Per Month	$ 6,065.00	$ 5,500.00

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PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
18-29.	Groundwater Treatment - Add On - Small - Short Term ≤ 6 mos.	Per Month	$ 5,314.27	$ 5,000.00
18-30.	Groundwater Treatment - Add On - Medium - Short Term ≤ 6 mos.	Per Month	$ 4,329.77	$ 3,100.00
18-31.	Groundwater Treatment - Add On - Large - Short Term ≤ 6 mos.	Per Month	$ 7,666.07	$ 7,500.00
18-32.	Groundwater Treatment - Add On - Small - Long Term > 6 mos.	Per Month	$ 6,550.00	$ 4,500.00
18-33.	Groundwater Treatment - Add On - Medium - Long Term > 6 mos.	Per Month	$ 9,325.00	$ 5,700.00
18-34.	Groundwater Treatment - Add On - Large - Long Term > 6 mos.	Per Month	$ 9,373.27	$ 7,000.00
18-35.	Carbon Off Gas Treatment - Add On - Small - Short Term ≤ 6 mos.	Per Month	$ 725.00	$ 600.00
18-36.	Carbon Off Gas Treatment - Add On - Medium - Short Term ≤ 6 mos.	Per Month	$ 850.00	$ 650.00
18-37.	Carbon Off Gas Treatment - Add On - Large - Short Term ≤ 6 mos.	Per Month	$ 1,650.00	$ 1,000.00
18-38.	Carbon Off Gas Treatment - Add On - Small- Long Term > 6 mos.	Per Month	$ 379.00	$ 350.00
18-39.	Carbon Off Gas Treatment - Add On - Medium - Long Term > 6 mos.	Per Month	$ 499.00	$ 375.00
18-40.	Carbon Off Gas Treatment - Add On - Large - Long Term > 6 mos.	Per Month	$ 785.00	$ 475.00
18-41.	Thermox/Catox Off Gas Treatment - Add On - Small - Short Term ≤ 6 mos.	Per Month	$ 3,885.00	$ 3,600.00
18-42.	Thermox/Catox Off Gas Treatment - Add On - Medium - Short Term ≤ 6 mos.	Per Month	$ 4,880.00	$ 4,000.00
18-43.	Thermox/Catox Off Gas Treatment - Add On - Large - Short Term ≤ 6 mos.	Per Month	$ 7,148.00	$ 6,300.00
18-44.	Thermox/Catox Off Gas Treatment - Add On - Small - Long Term > 6 mos.	Per Month	$ 3,328.00	$ 3,000.00
18-45.	Thermox/Catox Off Gas Treatment - Add On - Medium - Long Term > 6 mos.	Per Month	$ 4,338.00	$ 3,700.00
18-46.	Thermox/Catox Off Gas Treatment - Add On - Large - Long Term > 6 mos.	Per Month	$ 6,500.00	$ 5,900.00
18-47.	Soil Vapor Extraction (SVE) System - Small - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 5,000.00
18.48.	Soil Vapor Extraction (SVE) System - Small - Long Term > 6 Months	Per Month	Not Applicable	$ 4,100.00
18-49.	Soil Vapor Extraction (SVE) System - Medium - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 5,600.00
18-50.	Soil Vapor Extraction (SVE) System - Medium - Long Term > 6 Months	Per Month	Not Applicable	$ 5,000.00
18-51.	Soil Vapor Extraction (SVE) System - Large - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 7,300.00
18-52.	Soil Vapor Extraction (SVE) System - Large - Long Term > 6 Months	Per Month	Not Applicable	$ 6,800.00
18-53.	Air Sparge/Multphase Extraction (AS/MPE) System - Small - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 6,200.00
18-54.	Air Sparge/Multphase Extraction (AS/MPE) System - Small - Long Term > 6 Months	Per Month	Not Applicable	$ 5,800.00
18-55.	Air Sparge/Multphase Extraction (AS/MPE) System - Medium - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 7,400.00
18-56.	Air Sparge/Multphase Extraction (AS/MPE) System - Medium - Long Term > 6 Months	Per Month	Not Applicable	$ 7,000.00

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18-57.	Air Sparge/Multphase Extraction (AS/MPE) System - Large - Short Term ≤ 6 Months	Per Month	Not Applicable	$ 9,300.00
18-58.	Air Sparge/Multphase Extraction (AS/MPE) System - Large - Long Term > 6 Months	Per Month	Not Applicable	$ 8,800.00
19.	**REPORTS (Excluding Professional Engineering and Professional Geology Services)**			
19-1.	Soil Source Removal Report	Per Report	$ 2,115.00	$ 2,100.00
19-2.	Site Characterization Screening Report	Per Report	$ 2,015.00	Not Applicable
19-3.	General Site Assessment Report	Per Report	$ 5,495.00	$ 4,000.00
19-4.	Supplemental Site Assessment Report	Per Report	$ 2,645.00	$ 2,500.00
19-5.	Receptor and Exposure Pathway Report	Per Report	$ 1,650.00	$ 1,500.00
19-6.	Level 2 Natural Attenuation Monitoring Plan	Per Plan	$ 1,210.00	$ 1,200.00
19-7.	Natural Attenuation or Post RA Monitoring Report, Quarterly or Non-Annual	Per Report	$ 758.00	$ 625.00
19-8.	Natural Attenuation or Post RA Monitoring Report, Annual	Per Report	$ 1,595.00	$ 1,500.00
19-9.	Pilot Test Plan	Per Plan	$ 1,195.00	$ 900.00
19-10.	Pilot Test Report	Per Report	$ 1,535.00	$ 1,400.00
19-11.	Level 1 Remedial Action Plan	Per Plan	$ 13,150.00	$ 12,000.00
19-12.	Level 2 Remedial Action Plan	Per Plan	$ 17,295.25	$ 15,500.00
19-13.	Level 1 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 1,745.00	$ 1,700.00
19-14.	Level 2 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 3,300.00	$ 3,000.00
19-15.	Level 3 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 5,495.00	$ 5,300.00
19-16.	Level 4 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 8,890.00	$ 8,000.00
19-17.	Construction Drawings and Specs Report	Per Report	$ 3,845.00	$ 3,700.00
19-18.	As-Built Drawings (P.E. Sealed red lined modifications)	Per Drawings	$ 765.00	$ 700.00
19-19.	Remedial Action Startup Report	Per Report	$ 2,890.00	$ 2,500.00
19-20.	Letter/NPDES Report	Per Report	$ 359.00	$ 325.00
19-21.	Operation & Maintenance Report, Quarterly or Non-Annual	Per Report	$ 1,830.00	$ 1,800.00
19-22.	Operation & Maintenance Annual Report	Per Report	$ 3,310.00	$ 3,300.00
19-23.	Remedial Action General Report	Per Report	$ 1,325.00	$ 1,200.00

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19-24.	Remedial Action Interim Report	Per Report	$ 755.00	$ 600.00
19-25.	Free Product Recovery Report	Per Report	$ 600.00	$ 550.00
19-26.	Well Abandonment/Site Restoration Report	Per Report	$ 355.00	$ 300.00
19-27	Interim Assessment Report	Per Report	Not Applicable	$ 1,000.00
20.	**PERSONNEL (Excluding Professional Engineer and Professional Geologist)**			
20-1.	Program Manager (Key)	Per Hour	$ 165.00	$ 165.00
20-2.	Project Manager (Key)	Per Hour	$ 135.00	$ 135.00
20-3.	Engineer (Key)	Per Hour	$ 117.00	$ 117.00
20-4.	Geologist/Geoscientist (Key)	Per Hour	$ 106.00	$ 106.00
20-5.	Hydrogeologist/Modeler (Key)	Per Hour	$ 119.00	$ 119.00
20-6.	Scientist/Technical Specialist (Key)	Per Hour	$ 93.00	$ 93.00
20-7.	Assistant Scientist/Technical Specialist	Per Hour	$ 81.00	$ 81.00
20-8.	Field Technician (Key)	Per Hour	$ 74.00	$ 74.00
20-9.	Draftsperson	Per Hour	$ 67.00	$ 67.00
20-10.	Administrative	Per Hour	$ 56.00	$ 56.00
20-11.	Laborers and Security Guards	Per Hour	$ 53.00	$ 53.00
21.	**PROFESSIONAL ENGINEERING AND PROFESSIONAL GEOLOGY SERVICES**			
21-1.	Professional Engineer (**Key**)	Per Hour	$ 128.70	$ 128.70
21-2.	Professional Geologist (**Key**)	Per Hour	$ 116.60	$ 116.60
21-3.	P.G. Field Oversight of Drilling and Boring and Soil-Boring Logging (Use hourly rate on site specific basis)	Per Hour	$ 116.60	$ 116.60
21-4.	P.G. Field Oversight of Well Installation (Use hourly rate on site specific basis)	Per Hour	$ 116.60	$ 116.60
21-5.	P.E. Project Oversight for Remediation Technology Pilot Testing	Per Test	$ 1,158.30	$ 1,158.30
21-6.a.	P.E. Project Oversight for Remediation System Integration and Startup - Small System	Per System	$ 2,008.00	$ 2,008.00
21-6.b.	P.E. Project Oversight for Remediation System Integration and Startup - Medium System	Per System	$ 2,477.00	$ 2,200.00

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21-6.c.	P.E. Project Oversight for Remediation System Integration and Startup - Large System	Per System	$ 2,611.00	$ 2,500.00
21-6.d.	P.E. Project Oversight for Remediation System Integration and Startup - Extra Large System	Per System	$ 5,559.84	$ 3,000.00
21-7.a.	P.E. Project Oversight for Short Term or Episodic Remediation System Operation - Daily Basis	Per Day	$ 810.81	$ 810.81
21-7.b.	P.E. Project Oversight for Short Term or Episodic Remediation System Operation - Weekly Basis	Per Week	$ 1,071.00	$ 1,071.00
21-8.	P.E. Project Oversight for Remediation System Operation and Maintenance	Per Month	$ 1,674.00	$ 1,674.00
21-9.	P.E. Review and Certification of Sufficiency of Engineering Controls (other than permanent, impermeable surface or top two feet of clean fill), with Monitoring and Maintenance Recommendations Required for a Conditional NFA	Per Review and Certification	$ 1,029.60	$ 800.00
21-10.	P.G. Review and Certification of Sufficiency of Engineering Controls Limited to Permanent, Impermeable Surface or Top Two Feet of Clean Fill with Monitoring and Maintenance Recommendations Required for a Conditional NFA	Per Review and Certification	$ 699.60	$ 600.00
21-11.	P.E. Design and Certification of Plans and Project Oversight of Installation for Engineering Controls (other than permanent, impermeable surface or top two feet of clean fill) required for a conditional NFA	Per Engineering Controls Installation	$ 2,059.20	$ 1,800.00
21-12.	P.G. Review, Evaluation and Certification of Plans and Project Oversight for Installation of Engineering Controls Limited to Permanent, Impermeable Surface or Top Two Feet of Clean Fill Required for a Conditional NFA	Per Engineering Controls Installation	$ 1,288.43	$ 1,000.00
21-13.	P.G. or P.E. Review, Evaluation and Certification of a Soil Source Removal Report That Includes a Recommendation for NFA	Per Report	$ 514.80	$ 500.00

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21-14.	P.G. or Qualified P.E. Review, Evaluation and Certification of a Site Characterization Screening Report Attesting to the Field Work Portion Only and if the Report Includes a Recommendation for NFA	Per Report	$ 257.40	Not Applicable
21-15.	P.G. or Qualified P.E. Review, Evaluation and Certification of a General Site Assessment Report	Per Report	$ 875.16	$ 600.00
21-16.	P.G. or Qualified P.E. Review, Evaluation and Certification of a Supplemental Site Assessment Report	Per Report	$ 463.32	$ 450.00
21-17.	P.G. or P.E. Review, Evaluation and Certification of a Receptor and Exposure Pathway Report	Per Report	$ 514.80	$ 500.00
21-18.	P.E. Review, Evaluation and Certification of a Level 2 Natural Attenuation Monitoring Plan	Per Plan	$ 386.10	$ 380.00
21-19.	P.E. Review, Evaluation and Certification of a Non-Annual Natural Attenuation or Post RA Monitoring Report That Includes a Recommendation for NFA or a Recommendation to Modify the Approved Monitoring Plan	Per Report	$ 257.40	$ 255.00
21-20.	P.G or P.E. Review, Evaluation and Certification of an Annual Natural Attenuation Monitoring Report	Per Report	$ 386.10	$ 385.00
21-21.	P.E. Review, Evaluation and Certification of a Pilot Test Plan	Per Plan	$ 514.80	$ 500.00
21-22.	P.E. Review, Evaluation and Certification of a Pilot Test Report	Per Report	$ 900.90	$ 700.00
21-23.	P.E. Review, Evaluation and Certification of a Level 1 Remedial Action Plan	Per Plan	$ 5,148.00	$ 3,000.00
21-24.	P.E. Review, Evaluation and Certification of a Level 2 Remedial Action Plan	Per Plan	$ 6,435.00	$ 4,000.00
21-25.	P.E. Review, Evaluation and Certification of a Level 1 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 514.80	$ 500.00
21-26.	P.E. Review, Evaluation and Certification of a Level 2 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 810.81	$ 700.00

Region: North
Contractor: Tetra Tech, Inc.
Contract #: GC826

PAY ITEM	DESCRIPTION	UNIT OF MEASURE	ORIGINAL CONTRACTED ITEM PRICE 2014	REVISED AND RESTATED CONTRACTED ITEM PRICE 2015
21-27.	P.E. Review, Evaluation and Certification of a Level 3 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 1,801.80	$ 1,750.00
21-28.	P.E. Review, Evaluation and Certification of a Level 4 Limited Scope Remedial Action Plan or RAP Modification Plan	Per Plan	$ 3,861.00	$ 2,500.00
21-29.	P.E. Review, Evaluation and Certification of As-Built Drawings (P.E. sealed red lined modifications)	Per Set of Drawings	$ 257.40	$ 257.40
21-30.	P.E. Review, Evaluation and Certification of a Remedial Action Startup Report That Includes a Recommendation for System Modification or Significant Change in the Course of Action	Per Report	$ 772.20	$ 750.00
21-31.	P.E. Review, Evaluation and Certification of a Non-Annual Operation and Maintenance Report That Includes Significant Proposed Changes to the Approved RAP	Per Report	$ 1,389.96	$ 1,000.00
21-32.	P.E. Review, Evaluation and Certification of an Annual Operation and Maintenance Report	Per Report	$ 1,801.80	$ 1,000.00
21-33.	P.G or P.E. Review, Evaluation and Certification of a Remedial Action General Report	Per Report	$ 463.32	$ 350.00
21-34.	P.G or P.E. Review, Evaluation and Certification of an Interim Remedial Action Report That Includes a Recommendation for System Modification or Significant Change in the Course of Action	Per Report	$ 514.80	$ 450.00
21-35.	P.E. Review, Evaluation, and Certification of Construction Drawings	Per Set of Drawings	Not Applicable	$ 300.00
21-36.	P.E. Review, Evaluation, and Certification of Annual PARM Report	Per Report	Not Applicable	$ 450.00

XX	Non-Priced Scheduled Activity	As Negotiated	Not Applicable	Not Applicable

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ATTACHMENT

JSEB SUB-CONTRACTORS

1.3 NAME AND OFFICE LOCATION OF SUB CONSULTANTS AND PERCENT OF SERVICE

Our subcontractor team and office locations supporting the work are provided in Table 1-3. Tetra Tech has a long history of achieving and exceeding JSEB goals and will manage this work such that achieving our JSEB encouragement goal of 30% is met or exceeded. Estimates provided below are based on our experience with similar type of services and will be dependent on the scope of work as issued by the COJ and the FDEP.

TABLE 1-3: SUBCONSULTANTS AND PERCENT OF SERVICES

Subconsultant (JSEB Vendor ID)	Office Location	Percent of Services
* CSI Geo (00007847- JSEB)	2394 St. Johns Bluff Rd South, Jacksonville, FL 32246	2
* ERS Corp (00003534 – JSEB)	760 Talleyrand Ave, Jacksonville, FL 32202	25
ENCO Laboratories	4810 Executive Park Court, Suite 111 Jacksonville, FL 32216	(% included with ERS above)
R.E. Holland and Associates, Inc. (00000111 - JSEB)	9770 Baymeadows Way, Suite 105 Jacksonville, FL 32256	3
RC Development, Inc.	145 Hilden Road Bldg #105 Ponte Vedra, FL 32081	(% included with ERS above)
Probe Domain	3020 Thunder Rd. Middleburg, FL 32068	(% included with ERS above)
Preferred Drilling Solutions, Inc.	11747 87th St. North Largo, FL 33733	(% included in ERS above)
ATI Companies LLC, SBA Certified SDB, other certs: MBE, SBE, DBE	4610 Central Ave. St. Petersburg, FL 33711	(% included in ERS above)

JSEB BUSINESS

In order to meet and exceed our JSEB participation goal, Tetra Tech's proposed team will include three primary JSEB businesses; CSI Geo, R.E. Holland & Associates, and ERS Corp. CSI will provide all CEI services in support of this contract. R.E. Holland & Associates will provide all surveying support for this contract. ERS Corp is a JSEB with full environmental remediation service offerings and they will provide directly or will subcontract for drilling, laboratory analyses, and remediation performance including dig and hauls, remediation system construction and implementation, investigation derived waste (IDW) and waste management, and off-site disposal. The use of these JSEB businesses will allow the **achievement of a 30% JSEB encouragement goal.**