UST PSTEAF REIMBURSEMENT RATES

Energy and Environment Cabinet
Division of Waste Management
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1.0 INTRODUCTION

The UST PSTEAF Reimbursement Rates establishes reimbursement rates for eligible owners and operators of petroleum underground storage tanks (USTs) for permanent closure costs associated with the Small Owners Tank Removal Account (SOTRA) and costs for the completion of corrective action performed by an eligible company or partnership in accordance with 401 KAR Chapter 42. This document establishes the formulated task rates to be reimbursed for specific tasks performed in accordance with 401 KAR Chapter 42. This document also lists rates for equipment and personnel to perform a specific task that does not have a formulated task rate. A cost estimate shall be based on the rates established in this document, as applicable.

The formulated task rates prescribed in this document include, but are not limited to, facility visits, scheduling, oversight, labor, equipment and material needed in order to perform the listed actions.

The cabinet shall not reimburse an owner and operator more than the formulated task rate specified in this document except as provided in 401 KAR 42:250, Section 14.

An eligible company or partnership shall receive a fifteen percent (15%) markup for a task for which there is not a formulated task rate.[~~the following costs:~~

- ~~Employment of an unaffiliated subcontractor or other vendor for costs that do not have a formulated task rate; or~~
- ~~Purchase of materials associated with a task for which there is not a formulated task rate.~~]

Reimbursement shall be made in accordance with formulated task rates and rates identified within this document. Refer to 401 KAR 42:250[~~, Section 13, for eligible and ineligible costs~~].

2.0 FORMULATED TASK RATES FOR SMALL OWNER TANK REMOVAL ACCOUNT (SOTRA)

The following section identifies the formulated task rates allowed, per task performed, for performing permanent closure in association with a SOTRA Application for Assistance in accordance with 401 KAR 42:330. Unless otherwise noted, the following formulated task rates prescribed in this section shall include, but are not limited to, facility visits, scheduling, oversight personnel (one individual), labor, equipment and material needed in order to perform the listed tasks.

2.1 Permanent Closure Cost Matrix

The following table lists formulated task rates associated with permanent closure. Reimbursement from SOTRA shall be determined from the lesser of nine (9)[~~two (2)~~] dollars and ten (10)[~~eighty (80)~~] cents per gallon of tank capacity or the matrix table below. The matrix table costs include:

A. Tank system removal, cleaning, and disposal;
B. Closure-in-place requirements, including inert solid materials used to backfill the tank;
C. Permanent closure of thirty-five (35) feet of associated piping outside of the tank pit;
D. Removal of the pump island and canopy;
E. Drumming of cleaning material;
F. Removal of water below screening levels from the excavation zone;
G. Backfilling to return the excavation to grade to replace tank void;
H. Concrete or asphalt surface removal;
I. Equipment and material necessary for the permanent closure;
J. Preparation of a permit, if required for permanent closure;
K. Excavation and loading of material;
L. Collection of samples, including domestic-use wells, domestic-use springs, and domestic-use cisterns within a 100-meter radius of the UST system; and
M. Labor charges relating to items listed above.

Number of Tanks in Pit	**Size of Largest Tank in Pit** *(gallons)*			
	Less than 3,100	**3,101 to 5,100**	**5,101 to 10,000**	**Greater than 10,000**
1	$13,689[~~4,212~~]	$15,516[~~4,774~~]	$22,360[~~6,880~~]	$24,642[~~7,582~~]
2	$22,360[~~6,880~~]	$25,097[~~7,722~~]	$33,768[~~10,390~~]	$39,241[~~12,074~~]
3	$29,205[~~8,986~~]	$34,223[~~10,530~~]	$44,262[~~13,619~~]	$53,843[~~16,567~~]
4	$36,049[~~11,092~~]	$41,067[~~12,636~~]	$53,843[~~16,567~~]	$63,882[~~19,656~~]
5	$42,894[~~13,198~~]	$47,912[~~14,742~~]	$62,969[~~19,375~~]	$77,116[~~23,728~~]
Each Extra	$6,845[~~2,106~~]	$6,845[~~2,106~~]	$8,213[~~2,527~~]	$10,040[~~3,089~~]
If more than one (1) tank pit is located on a facility, the reimbursement shall be calculated by adding the matrix table cost for each pit.				
Permanent closure of piping greater than 35 feet outside the excavation zone.				$26[~~20~~] per foot *(per tank pit)*

2.2 Reporting

Formulated task rates for reporting include, but are not limited to, personnel time for preparation of the report (narrative, figures, maps, tables, amended Classification Guides, etc.), secondary reviews, modifications, revisions, any re-submittals necessary to obtain cabinet approval, clerical support, and all other direct costs such as copying, binding and delivery (e.g. electronic submittals, mailing, faxing, hand delivery, etc.). This shall include the cost of preparing a Classification Guide.

Closure Assessment Report *for* SOTRA (with DWM 4261 and DWM 4262)	$2,880[~~2,260~~]

2.3 Mobilization/Demobilization and Mileage

The following table lists formulated task rates associated with the mobilization and demobilization of heavy equipment and drilling equipment. One mobilization and demobilization charge for oversight personnel and heavy equipment (including support vehicle), if required, shall be allowed per directive. This includes personnel time and equipment time prior to and after travel time. Mileage shall be based on one-way miles from the State Fire Marshal's Office (SFMO) certified remover's nearest office to the facility. One payment (at the per mile rate listed below) shall be made for each task directed by the cabinet regardless of the number of vehicles or pieces of equipment mobilized.

Mileage allowed per mile for vehicle and oversight personnel. Also used to calculate additional local miles for per diem as allowed in Section 3.2 in this manual.	$2.85[~~2.20~~] per mile *(maximum $2,850[~~2,200~~])*
Mileage allowed per mile for heavy equipment: includes all equipment, trailers and personnel needed to transport equipment.	$7.95[~~5.60~~] per mile *(minimum of $795[~~540~~])*

2.4 Transportation and Disposal of Generated Waste Generated at Permanent Closure

The following table lists formulated task rates associated with the transportation and disposal of drums, including all labor, equipment and material costs.

Disposal of drummed tank waste, per drum	Actual cost +[~~at point of disposal plus a maximum~~] 15% [~~markup~~]
Disposal of drummed waste, purged water or soil cuttings: includes all costs associated with this task, including the initial drum cost. Reimbursement shall be based upon the number of drums documented on waste manifests from the permitted disposal facility.	$286 per drum
Transportation of drummed tank waste, purged water or soil cuttings, per drum: includes, but is not limited to, all labor, equipment, personnel, scheduling, completion of documentation, and oversight if needed.	$149[~~120~~] per drum
Removal and transportation of tank contents associated with SOTRA closure activities.	Actual Cost + 15%[~~$0.27 per gallon *(minimum of $650)*~~]
Disposal of tank contents associated with SOTRA closure activities	Actual Cost + 15%[~~$ 0.49 per gallon~~]
Fee for EPA Generator ID Number (if necessary)	$412[~~324~~] each

Transportation and Disposal of Material, and Replacement of Backfill within the Excavation Zone

The following table lists formulated task rates associated with excavation, disposal/treatment, transportation, and replacement of material contaminated above screening levels, or otherwise directed in writing by the cabinet. This includes all necessary labor, oversight personnel (one individual), equipment, waste characterization, and material to perform the tasks, as well as the transportation and disposal of asphalt and concrete.

Backfill from borrow area, per ton: includes excavation, loading, weighing, permitting, transportation and restoration of borrow area. Reimbursement shall be based on weigh tickets to verify tonnage.	$16[~~12.60~~] per ton
Backfill material, per ton: includes the purchase and transportation of backfill material to replace the contaminated material that was disposed or treated. Reimbursement shall be based on weigh tickets, to verify tonnage, to the nearest quarry.	
Nearest quarry within 50 one-way miles of the facility	$34[~~21~~] per ton
Nearest quarry 50 to 100 one-way miles from the facility	$43[~~28~~] per ton
Nearest quarry over 100 one-way miles from the facility	$52[~~35~~] per ton
Transportation and disposal of contaminated material at a permitted disposal facility or permitted treatment facility: includes the transportation and disposal of asphalt and concrete. Reimbursement shall be based on weigh tickets, to verify tonnage, to the nearest landfill.	
Nearest landfill within 50 one-way miles of the facility	$84[~~65~~] per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103[~~80~~] per ton
Nearest landfill over 100 one-way miles from the facility	$122[~~94~~] per ton

2.5 Water/Product Recovery and Management

The following table lists formulated task rates associated with the transportation, treatment, recycling, or disposal of water contaminated above screening levels, including all labor, oversight personnel (one individual), equipment and material needed in order to perform the tasks.

Removal and transportation of contaminated water from within the excavation zone, during permanent closure activities conducted after October 1, 2011.	Actual Cost + 15%[~~$0.27 per gallon *(minimum of $650)*~~]
Disposal of contaminated water at a wastewater treatment plant or a recycling facility includes all sampling and laboratory analysis required by the permitted facility, and associated charges, per gallon.	Actual Cost + 15%[~~$0.49 per gallon~~]

2.6 Laboratory Parameters

The following table lists formulated task rates associated with laboratory parameters for samples collected and analyzed. These formulated task rates include, but are not limited to the cost of preparing the samples for shipment, the cost of shipment, and sample containers.

BTEX (Method 8021): MTBE reporting for domestic-use sources as described in Section 4.11 of the UST Corrective Action Manual (incorporated by reference in 401 KAR 42:060).	$110[~~86~~] per sample
BTEX (Method 8260): MTBE reporting for domestic-use sources as described in Section 4.11 of the UST Corrective Action Manual (incorporated by reference in 401 KAR 42:060).	$121[~~100~~] per sample
BTEX, Trip Blank (water only)	$110[~~100~~] per sample
Grain Size Analysis	$262[~~216~~] per sample
Ignitability	$76[~~59~~] per sample
Lead, Dissolved (groundwater)	$69[~~54~~] per sample
Lead, Total (soil)	$69[~~54~~] per sample
PAH (Method 8270)	$291[~~228~~] per sample
Paint Filter Test	$66[~~52~~] per sample
pH	$55[~~43~~] per sample
Waste Characterization	Actual cost +[~~plus~~] 15%

2.7 Point of Compliance Soil Borings

The following table lists formulated task rates associated with the advancement of soil borings for Point of Compliance groundwater assessments in accordance with Section 4.14 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060. These costs include all equipment and material needed in order to perform the tasks, per diem for drilling personnel, and oversight personnel (one individual). Costs associated with traffic control (if necessary) are included in the listed costs.

Soil borings (applies to those borings where monitoring wells are not required in the same location): includes labor, water supply, personnel time for soil sample collection, backfilling of soil boring, and decontamination of equipment. An additional $17[~~3~~] per foot will be added for each soil boring over 30 feet.	$488[~~335~~] per soil boring up to 30 feet in depth *(minimum $976[~~760~~])*

3.0 FORMULATED TASK RATES FOR CORRECTIVE ACTION

3.1 Mobilization/Demobilization and Mileage

The following table lists formulated task rates associated with the mobilization and demobilization of heavy equipment and drilling equipment. One mobilization and demobilization charge for oversight personnel and heavy equipment (including support vehicle), if required, shall be allowed per directive. This includes personnel time and equipment time prior to and after travel time. Mileage shall be based on one-way miles from the eligible company's or partnership's nearest office to the facility. One payment (at the per mile rate listed below) shall be made for each task directed by the cabinet regardless of the number of vehicles or pieces of equipment mobilized.

Mileage allowed per mile for vehicle and oversight personnel. Also used to calculate additional local miles for per diem as allowed in Section 3.2 of this manual.	$2.85[~~2.20~~] per mile *(maximum $2,850[~~2,200~~])*
Mileage allowed per mile for heavy equipment: includes all equipment, trailers and personnel needed to transport equipment.	$7.95[~~5.60~~] per mile *(minimum of $795[~~540~~])*
Mobilization and demobilization of drilling equipment and support vehicle: includes drill rig, two-man crew, labor for gathering of equipment, tools, travel time, and all steam cleaning.	$7.95[~~5.60~~] per mile *(minimum of $795[~~540~~])*

3.2 Per Diem

The following table lists formulated task rates for per diem costs for an individual providing supervisory oversight at the facility. Per diem reimbursement for non-supervisory personnel has been integrated into the formulated task rates established. Mileage shall be based on one-way miles from the eligible company or partnerships nearest office to the facility. Per diem shall be determined based upon the following:

A facility must be more than 55 one-way miles from the eligible company or partnership's nearest office, or as determined by the cabinet, and one (1) of the following:	
For over-excavation, a one (1) day per diem per 500 tons (total tonnage expected must exceed 500 tons).	$217[~~165~~] per day
Any other field work required by the cabinet at a facility (including travel-time) that would constitute more than a 10-hour day or as determined by the cabinet.	
Additional $2.85[~~2.20~~] per mile for mileage when per diem is allowed: maximum thirty (30) local miles.	$86[~~70~~] for each Per Diem

3.3 Equipment

The following table lists formulated task rates for necessary equipment needed to complete directed actions by the cabinet.

Field Equipment: includes field screening equipment necessary during site investigation, corrective action, or over-excavation activities for a facility (i.e., PID, water level indicator, LEL meter, multi-meter, or other equipment combinations as required.	$210[~~165~~] per day
Field Equipment for Vapor Intrusion Assessment: includes field screening equipment necessary during vapor intrusion assessment activities for a facility: includes field equipment costs associated with site investigation and corrective action activities performed in conjunction with the vapor intrusion assessment.	$280[~~220~~] per day
Tools of the Trade: includes, but is not limited to, camera, log books, measuring wheels, personnel protective and safety equipment, cones, barricades, signage, and other tools or devices typically used by environmental contractors. Allowed for each day of fieldwork at the facility.	$70[~~55~~] per day

3.4 Asphalt/Concrete Removal and Disposal

Removal of Asphalt	
Asphalt (3-inch thickness, per square foot)	$0.70[~~0.54~~] per sq. ft.
Cost of additional thickness per inch	$0.20[~~0.16~~] per sq. ft.
Removal of Concrete (concrete pad, per square foot)	
4-inch thickness	$0.70[~~0.54~~] per sq. ft.
6-inch thickness	$1.05[~~0.81~~] per sq. ft.
9-inch thickness	$2.10[~~1.62~~] per sq. ft.
10-inch or more thickness	$5.35[~~4.21~~] per sq. ft.
With rebar	Add 15% to cost per sq. ft.
Transportation and disposal of asphalt or concrete at a permitted disposal facility. Reimbursement shall be based on weigh tickets from the permitted disposal facility to verify tonnage to the nearest landfill.	
Nearest landfill within 50 one-way miles of the facility	$84[~~65~~] per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103[~~79~~] per ton
Nearest landfill over 100 one-way miles from the facility	$122[~~93~~] per ton

3.5 Material Removal, Disposal/Treatment, Transportation and Replacement

The following table lists formulated task rates associated with excavation, disposal/treatment, transportation and replacement of material contaminated above screening levels or otherwise directed in writing by the cabinet, including all labor, oversight personnel (one individual), equipment, waste characterization and material needed in order to perform the tasks.

Excavation of contaminated material (per ton)	$7.35[~~5.75~~] per ton *(minimum of $3,675[~~2,500~~])*
Backfill from borrow area (per ton): includes excavation, loading, weighing, permitting, transportation, and restoration of borrow area. Reimbursement shall be based on weigh tickets to verify tonnage of excavated material disposed.	$16[~~12.60~~] per ton
Backfill material, per ton: Reimbursement shall be based on weigh tickets, to verify tonnage, from the nearest quarry.	
Nearest quarry within 50 one-way miles of the facility	$34[~~21~~] per ton
Nearest quarry 50 to 100 one-way miles from the facility	$43[~~28~~] per ton
Nearest quarry over 100 one-way miles from the facility	$52[~~35~~] per ton
Install, compact, and grade backfill using a vibratory sheepsfoot compactor, per ton. Reimbursement shall be based upon the weight of material as determined above.	$6.65[~~5.25~~] per ton
Trenching (per linear foot)	$29[~~25~~] per ln. ft. at 5 feet of depth
Transportation and disposal of contaminated material at a permitted disposal facility or permitted treatment facility. Reimbursement shall be based on weigh tickets, to verify tonnage, to the nearest landfill.	
Nearest landfill within 50 one-way miles of the facility	$84[~~65~~] per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103[~~80~~] per ton
Nearest landfill over 100 one-way miles from the facility	$122[~~94~~] per ton

3.6 Water/Product Recovery and Management

The following table lists formulated task rates associated with the removal, transportation, treatment, recycling, or disposal of water. These costs are not reimbursable during permanent closure unless the closure is approved in accordance with 401 KAR 42:330 (SOTRA). The costs[~~Formulated task rates~~] include all labor, oversight personnel (one individual), transportation, equipment and material needed in order to perform the tasks.

Removal of water: rate is limited to approximately 2,400 gallons, per event, unless otherwise approved by the cabinet.	Actual Cost + 15%[~~$0.11 per gallon *(minimum of $325)*~~]
Removal, treatment, and discharge of contaminated water from an on-site mobile unit: includes all equipment, labor, permitting, sampling and laboratory analysis required by a Kentucky Pollution Discharge Elimination System (KPDES) permit or local regulatory authority, and associated charges, per gallon. Transportation will not be included for on-site treatment and/or discharge.	Actual Cost + 15%[~~$0.49 per gallon~~]
Transportation of contaminated water	Actual Cost + 15%[~~$0.16 per gallon *(minimum of $325)*~~]
Disposal of contaminated water at a wastewater treatment plant, a sanitary sewer (if required by the wastewater treatment plant), or a recycling facility: includes all sampling and laboratory analysis required by the permitted facility, and associated charges, per gallon. Removal and transportation will be added based on the formulated task rates, if applicable.	Actual Cost + 15%[~~$0.49 per gallon~~]
Discharge of water permitted by a KPDES permit into a storm sewer or on the ground surface.	Actual Cost + 15%[~~$0.11 per gallon~~]
Discharge of water below site-specific screening levels into an excavation.	Actual Cost + 15%[~~$0.11 per gallon~~]
Free Product Recovery (by hand bailing, absorbent socks, etc.) per well as directed by the cabinet.	$114[~~$90~~] per well

3.7 Drilling/Well Installation, Sampling, and Abandonment

The following table lists formulated task rates associated with drilling, well installation, sampling (includes chain-of-custody documentation), required surveying (excluding well abandonments and borings) and abandonment. These costs include all equipment and material needed in order to perform the tasks, per diem for drilling personnel, and oversight personnel (one individual). Costs associated with traffic control (if necessary) are included in the listed costs.

Installation of a PVC monitoring well: includes, but is not limited to, decontamination of down-hole equipment, grout or backfill material, development of well, personnel time for soil sample collection, surface completion, preparation and submission of well records, and photographic documentation. Additional costs will be added per foot for each well over 30 feet.	$2,550[~~1,915~~] per well up to 30 feet in depth *(with soil sampling)*
	$2,062[~~1,580~~] per well up to 30 feet in depth *(without soil sampling)*
$85[~~64~~] per foot per well over 30 feet with soil sampling	
$69[~~53~~] per foot per well over 30 feet without soil sampling	
Installation of PVC monitoring well in bedrock: includes, but is not limited to, decontamination of down-hole equipment, grout or backfill material, development of well, personnel time for soil sample collection, surface completion, preparation and submission of well records, and photographic documentation. Additional costs will be added per foot for each well over 30 feet.	$3,373[~~2,560~~] per well up to 30 feet in depth *(with soil sampling)*
	$2,885[~~2,225~~] per well up to 30 feet in depth *(without soil sampling)*
$113[~~86~~] per foot per well over 30 feet with soil sampling	
$97[~~75~~] per foot per well over 30 feet without soil sampling	
Installation of double-cased PVC monitoring well in bedrock: includes, but is not limited to, decontamination of down-hole equipment, grout or backfill material, development of well, personnel time for soil sample collection, surface completion, preparation and submission of well records, and photographic documentation. Additional costs will be added per foot for each well over 30 feet.	$4,470[~~3,425~~] per well up to 30 feet in depth *(with soil sampling)*
	$3,982[~~3,090~~] per well up to 30 feet in depth *(without soil sampling)*
$149[~~115~~] per foot per well over 30 feet with soil sampling	
$133[~~103~~] per foot per well over 30 feet without soil sampling	
Installation of 4-inch minimum Recovery well: includes, but is not limited to, decontamination of down-hole equipment, grout or backfill material, development of well, personnel time for soil sample collection, surface completion, preparation and submission of well records (if a sample is collected from the well), and photographic documentation. Additional costs will be added per foot for each well over 30 feet.	$3,373[~~2,560~~] per well up to 30 feet in depth *(with soil sampling)*
	$2,885[~~2,225~~] per well up to 30 feet in depth *(without soil sampling)*
$113[~~86~~] per foot per well over 30 feet with soil sampling	
$97[~~75~~] per foot per well over 30 feet without soil sampling	
Overburden Well Abandonment by a variance (i.e., casing pulled, cut-off, and borehole grouted, etc.): includes the cost of all material, equipment and labor, including oversight personnel, the preparation and submission of variance request and well records, photographic documentation, and surface material replacement.	$738[~~540~~] per well *(minimum of $1,476)*
Overburden Well Abandonment during Over-excavation: includes the cost for the preparation and submission of variance request and well records.	$201[~~160~~] per well

Overburden Well Abandonment in accordance with Section 11 of 401 KAR 6:350 (i.e., casing screen-grout-filter pack removed and borehole grouted): includes the cost of all material, equipment and labor, including oversight personnel, the preparation and submission of well records, photographic documentation, and surface material replacement An additional $40[~~29~~] per foot will be added for each well abandoned over 30 feet.	$1,199[~~860~~] per well up to 30 feet in depth
Bedrock Well Abandonment in accordance with Section 11 of 401 KAR 6:350 (i.e., casing screen-grout-filter pack removed and borehole grouted): includes the cost of all material, equipment and labor, including oversight personnel, the preparation and submission of well records, photographic documentation, and surface material replacement. An additional $51[~~38~~] per foot will be added for each well abandoned over 30 feet.	$1,528[~~1,115~~] per well up to 30 feet in depth
Bedrock Double-Cased Well Abandonment in accordance with Section 11 of 401 KAR 6:350 (i.e., casing screen-grout-filter pack removed and borehole grouted): includes the cost of all material, equipment and labor, including oversight personnel, the preparation and submission of well records, photographic documentation, and surface material replacement. An additional $68[~~38~~] per foot will be added for each well abandoned over 30 feet.	$2,019[~~1,450~~] per well up to 30 feet in depth
Abandonment records for lost or destroyed wells: includes preparation and submission of well plugging records in lieu of the well abandonment cost.	$67[~~55~~] per record
Soil borings (applies to those borings where monitoring wells are not required in the same location): includes labor, water supply, personnel time for soil sample collection, backfilling of soil boring, and decontamination of equipment. An additional $17[~~3~~] per foot will be added for each soil boring over 30 feet.	$488[~~335~~] per soil boring up to 30 feet in depth *(minimum $976[~~760~~])*
Installation and construction of temporary monitoring well: includes down-hole material, well development, abandonment, and decontamination of equipment. An additional $42[~~32~~] per foot will be added for each well installed over 30 feet.	$1,239[~~930~~] per temporary monitoring well
Installation and construction of piezometer: includes down-hole material, well development, backfilling of void, and decontamination of equipment. An additional $42[~~32~~] per foot will be added for each piezometer installed over 30 feet.	$1,239[~~930~~] per piezometer
Domestic-Use Cistern or Domestic-Use Well Abandonment (as directed by the cabinet)	$2,423[~~1,730~~] each
Water sampling per well: includes gauging and purging for monitoring wells as directed by the cabinet.	$114[~~90~~] per well
Low-Flow Water Sampling per well: includes gauging and purging for monitoring wells as directed by the cabinet.	$228[~~180~~] per well
Surface Water Sampling (as directed by the cabinet)	$35[~~30~~] per sample point
Well Gauging, per well	$50[~~45~~] per well
Monitoring Well Pad Replacement: damage (e.g., cracked concrete pad, damaged protective casing, etc.), shall be reported to the cabinet in writing, and include photo documentation of the damaged monitoring well pad.	$500[~~386~~] per well pad replacement
Rock Coring	$178[~~140~~] per foot
Daily Rate for Direct-Push (as directed by the cabinet for bedrock soundings)	$3,120[~~2,455~~] per day
Shoring Evaluation Boring soundings. An additional $17[~~$3~~] per foot will be added for each shoring evaluation boring over 30 feet.	$488[~~335~~] per boring
Well or piezometer top of casing elevation survey, not in conjunction with installation or repair of a well or piezometer (as directed by the cabinet).	$522[~~430~~] per directive

3.8 Drums

The following table lists formulated task rates associated with the transportation and disposal of drums, including all labor, equipment and material costs.

Transportation of drummed waste, purged water or soil cuttings, per drum: includes, but is not limited to, all labor, equipment, personnel, scheduling, completion of documentation, and oversight if needed.	$149[~~120~~] per drum
Disposal of drummed waste, purged water or soil cuttings: includes all costs associated with this task, including the initial drum cost. Reimbursement shall be based upon the number of drums documented on waste manifests from the permitted disposal facility.	$286[~~135~~] per drum

3.9 Surveying

The following table lists formulated task rates associated with initial and additional site surveys, including all labor, equipment, and material costs.

Initial Site Survey: survey shall be performed in accordance with the UST Corrective Action Manual incorporated by reference in 401 KAR 42:060 as directed by the cabinet.	$1,921[~~1,505~~] per 100-foot radius of the excavation zone
Additional Site Survey: for each additional directional 30-meters (100 feet) area beyond those identified on the initial site survey for a facility as directed by the cabinet.	$944[~~740~~] each
Private Utility Locate (as directed by the cabinet)	Actual Cost +[~~plus~~] 15% *(maximum[~~not to exceed~~] $2,540[~~2,000~~])*

3.10 Encroachment Permits and Off-Site Access Agreements

The following table lists formulated task rates associated with encroachment permits and off-site access agreements, including all labor and associated costs.

Initial Encroachment Permit (as directed in writing by the cabinet)	$545[~~430~~] each
Encroachment Permit Renewal (must be approved/directed in writing by the cabinet prior to renewal)	$237[~~190~~] each
Encroachment Permit Renewal without Insurance Bond (must be approved/directed in writing by the cabinet prior to renewal)	$67[~~55~~] each
Off-Site Property Access Agreement (including properly documented denials in accordance with the UST Corrective Action Manual incorporated by reference in 401 KAR 42:060). When an off-site property access agreement is directed in writing by the cabinet, this formulated task rate is allowed, so long as the off-site property owner is not the PSTEAF applicant.	$545[~~430~~] each

3.11 Interim Corrective Action Activities

The following table lists formulated task rates associated with interim corrective action, including all labor, equipment and material costs.

[Pump Test: includes the disposal or treatment of water as directed by the cabinet	
8-hr pump test	$2,554[~~2,010~~] per test
12-hr pump test	$3,830[~~3,010~~] per test
24-hr pump test	$7,660[~~6,020~~] per test
Slug Test: includes all field personnel and equipment as directed by the cabinet.	$686[~~540~~] per well
Mobile dual-phase extraction (MDPE) initial event: includes all personnel, equipment, material, set up/tear down costs needed in order to perform this task as directed by the cabinet.	$5,006[~~3,240~~] *(initial 8-hour day)*
Continuous MDPE event, for each day after the initial event: includes all personnel, equipment, material needed in order to perform this task as directed by the cabinet. Reimbursement shall be prorated based on the duration of system operation.	$3,039[~~1,620~~] per day
[~~Injection at high pressure: requires industrial pumps capable of safely delivering and maintaining pressures up to 1,200 psi in order to create an appropriate velocity to achieve radial distribution-fracture emplacement: includes all field personnel and all equipment needed in order to perform this task, and excludes project manager oversight as directed by the cabinet.~~]	[~~$79 per vertical injection interval *(minimum $17,930)*~~]
[~~At a minimum, equipment includes a direct-push unit, concrete corer, tow motor, generator, forklift, skid loader, wet/dry vacuum, hoses, electrical costs, and injection trailer (pumps and mixing tank). Project manager oversight, injectate, and mobilization is not included and will be added as a separate cost.~~]	

3.12 Operation and Maintenance

The following table lists formulated task rates associated with operation and maintenance of remedial systems, including all labor, equipment, and material costs.

Routine Operation and Maintenance of a remediation system per an approved Corrective Action Plan (CAP) and as reported in the UST Groundwater Monitoring Checklist, DWM 4264. This [~~formulated task rate~~] includes all personnel and equipment [~~and excludes utilities~~].	
[~~High~~] Maintenance [~~(3-days per month)~~]	Actual Cost + 15%[~~$3,415 per qtr.~~]
Utilities[~~Medium maintenance (2-days per month)~~]	Actual Cost[~~$1,820 per qtr.~~
~~Low maintenance (1-day per month)~~	~~$1,140 per qtr.~~
Unscheduled Maintenance of a Remediation System: includes all personnel and equipment and excludes replacement of components. Reimbursement shall be limited to four (4) unscheduled maintenance visits per twelve (12) month period. Additional unscheduled maintenance visits shall be approved in advance by the cabinet and shall result in a re-evaluation of the system.	Actual Cost + 15%[~~$1,080 per visit~~]

3.12.1 Soil Gas Sampling

Soil Gas Sampling	$1,427 per pin
Sub Slab Soil Gas Sampling	$768 per pin

3.13 Other Tasks

The following table lists formulated task rates associated with other tasks, including all labor, equipment, and material costs.

Initial and Immediate Response Actions: for actions taken outside of the excavation zone, in accordance with Section 2.2 of the UST Corrective Action Manual, incorporated by reference in 401 KAR 42:060, prior to a written directive from the UST Branch or prior to the date of a declared environmental emergency by the cabinet. Response actions may include mitigation of fire and explosion hazards, and cleanup of spills and overfills using absorbent pads or booms, and prevention of further UST system releases. The costs reimbursable[~~formulated task rate~~] includes all personnel and equipment, preparation of the required status letter, facility sketch, description of work completed, photographic documentation, and recommendations for future actions.	Up to $20,000 [~~$1,080~~] per occurrence
Site visit to reevaluate previously confirmed classification criteria when directed in writing by the cabinet, as a stand-alone event: includes completion of an amended UST Classification Guide, DWM 4261.	$551[~~435~~] per request
Site visit to complete a UST Classification Guide, DWM 4261, as part of a Site Check (as directed by the cabinet).	$551[~~435~~] per request
Tank & Line Tightness Testing in conjunction with site check, site investigation, or corrective action activities for a facility as directed by the cabinet.	$813[~~640~~] per test

3.14 Laboratory Parameters

The following table lists formulated task rates associated with laboratory parameters for samples collected and analyzed. These formulated task rates include, but are not limited to, the cost of preparing the samples for shipment, the cost of shipment, and sample containers.

Laboratory Parameters	
Active Persulfate	$15[~~12~~] per sample
Biological Oxygen Demand (BOD)	$55[~~43~~] per sample
BTEX (Method 8021): MTBE reporting included if directed by the cabinet for domestic-use sources	$110[~~86~~] per sample
BTEX (Method 8260): MTBE reporting included if directed by the cabinet for domestic-use sources	$121[~~100~~] per sample
BTEX (Method 8260) 24-hour turn around: MTBE reporting included if directed by the cabinet for domestic-use sources	$194[~~160~~] per sample
BTEX, Field Blank (water only)	$121[~~100~~] per sample
BTEX, Trip Blank (water only)	$110[~~100~~] per sample
Calcium (Ca)	$69[~~54~~] per sample
Carbon Dioxide (CO_2)	$63[~~52~~] per sample

Carbonate Alkalinity	$28[~~22~~] per sample
Chemical Oxygen Demand (COD)	$49[~~38~~] per sample
Dissolved Calcium	$68[~~50~~] per sample
Dissolved Iron	$24[~~18~~] per sample
Dissolved Magnesium	$32[~~25~~] per sample
Ferrous Iron	$28[~~23~~] per sample
Grain Size Analysis	$262[~~216~~] per sample
Hardness	$22[~~18~~] per sample
Heterotrophic Plate Count	$88[~~65~~] per sample
Ignitability	$76[~~59~~] per sample
Inorganic Nitrogen (N)	$83[~~70~~] per sample
Intrinsic Soil Permeability (includes all costs for collection and analysis)	$686[~~540~~] per sample
Iron (Fe)	$55[~~43~~] per sample
Iron, Total	$32[~~25~~] per sample
Lead, Total (soil)	$69[~~54~~] per sample
Lead, Total (soil) 24-hour turn around	$140[~~115~~] per sample
Lead, Dissolved (groundwater)	$69[~~54~~] per sample
Lead Dissolved (groundwater) 24-hour turn around	$140[~~115~~] per sample
Low Level Volatile Fatty Acids	$183[~~135~~] per sample
PAH (Method 8270)	$291[~~228~~] per sample
PAH (Method 8270) 24-hour turn around	$349[~~288~~] per sample
Manganese (Mn)	$32[~~25~~] per sample
Methane	$81[~~60~~] per sample
Microbe Enumeration Studies	$144[~~113~~] per sample
Nitrate (NO_3)	$46[~~38~~] per sample
Nitrite (NO_2)	$46[~~38~~] per sample
Paint Filter Test	$66[~~52~~] per sample
pH	$55[~~43~~] per sample
Phosphate (PO_3)	$43[~~33~~] per sample
Soil Moisture Content	$21[~~16~~] per sample
Soil Oxidation Reduction Potential (Redox)	$55[~~43~~] per sample
Soluble Ferrous Iron	$54[~~40~~] per sample
Sulfate (SO_4)	$39[~~30~~] per sample
Sulfide (S^{2-})	$42[~~32~~] per sample
Total Dissolved Solids (TDS)	$35[~~27~~] per sample
Total Organic Carbon (TOC)	$103[~~81~~] per sample
Total Petroleum Hydrocarbon (TPH-GRO and TPH-DRO)	$103[~~81~~] per sample
Total Organic Nitrogen (TON)	$69[~~54~~] per sample
Waste Characterization	Actual cost plus 15%
Vapor Intrusion Assessment Laboratory Parameters	
Individual Summa Canister Certification	$138[~~108~~] each
Method TO-15	$393[~~324~~] per sample
Method 8260	$172[~~135~~] per sample
Oxygen/Carbon Dioxide (O_2/CO_2)	$138[~~108~~] per sample

3.15 Reporting

Formulated task rates for reporting include, but are not limited to, personnel time for preparation of the report (narrative, figures, maps, tables, amended Classification Guides, etc.), secondary reviews, modifications, revisions, any re-submittals necessary to obtain cabinet approval, clerical support, and all other direct costs such as copying, binding and delivery (e.g. mailing, faxing, hand delivery, etc.).

Initial Abatement Reporting	
Initial Abatement Report	$1,534[~~1,205~~]

Site Check Reporting	
Site Check Report (with DWM 4268)	$1,516[~~1,190~~]

Closure Reporting	
Optional Soil Removal at the time of Permanent Closure Report (submitted with the Closure Assessment Report)	$690[~~545~~]

Site Investigation Reporting	
Site Investigation Report – Base Report (with DWM 4269): this reporting cost will be added to all site investigation reports when directed by the cabinet.	$3,647[~~2,865~~]
Initial Site Survey Reporting – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.	$1,277[~~1,005~~]
Additional Site Survey Reporting – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.	$787[~~620~~]
Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.	$1,233[~~970~~]
Vapor Assessment – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.	$1,040[~~820~~]
Corrective Action Reporting	
Over-Excavation Scope of Work Proposal (with 4263)	$1,056[~~830~~]
Over-Excavation Report < 500 cubic yards (with DWM 4267)	$690[~~545~~]
Over-Excavation Report > 500 cubic yards (with DWM 4267)	$1,772[~~1,390~~]
Scope of Work Proposal *for* Injection, Geophysics, High Resolution Site Characterization (HRSC), and Vapor Assessment or another report as directed by the cabinet (with DWM 4263)	$1,962[~~1,545~~]
Injection, Geophysics, or High Resolution Site Characterization (HRSC) Report or another report as directed by the cabinet (with DWM 4263)	$2,052[~~1,615~~]
Scope of Work Proposal *for* a Feasibility Study or Pilot Study (with DWM 4263)	$1,962[~~1,545~~]
Feasibility Study Report (with DWM 4263)	$2,199[~~1,730~~]
Pilot Study Report (with DWM 4263)	$4,173[~~3,280~~]
As-Built or Corrective Action Implementation Report (with DWM 4263)	$1,399[~~1,100~~]
Groundwater Monitoring Report (with DWM 4264)	$1,553[~~1,220~~]
Corrective Action Plan – Soil Only (with DWM 4263)	$4,576[~~3,600~~]
Corrective Action Plan – Groundwater Only or Groundwater and Soil (with DWM 4263)	$7,634[~~6,000~~]
Amended Corrective Action Plan – Soil Only (with DWM 4263)	$2,424[~~1,905~~]

Amended Corrective Action Plan – Groundwater Only or Groundwater and Soil (with DWM 4263)	$4,309[~~3,390~~]
Risk Assessment Scope of Work Proposal (with DWM 4263)	$3,971[~~3,120~~]
Risk Assessment Report (Tier II or Tier III) (with DWM 4263)	$31,460[~~24,690~~]

Miscellaneous Reporting	
Miscellaneous Report	$507[~~400~~]
Free Product Recovery Report	$690[~~545~~]
Minor Field Work Report	$1,005[~~790~~]
Mobile Dual-Phase Extraction Report (with DWM 4265)	$1,494[~~1,180~~]
Shoring Evaluation Report	$1,572[~~1,235~~]
Completion of UST Vapor Intrusion Building Assessment Checklist, DWM 4271	$245[~~195.00~~] per building
Completion of UST Vapor Intrusion Assessment Checklist, DWM 4270	$245[~~195.00~~] per sampling event
Completion of Conceptual Site Model Report	Actual Cost plus 15%

4.0 SURFACE MATERIAL REPLACEMENT

The following table lists formulated task rates associated with surface material replacement. These costs include all necessary labor, oversight personnel (one individual), equipment, and material to perform surface material replacement. Rebar and curbing costs are included in the formulated task rates.

Asphalt replacement	$1.85[~~1.50~~] per sq. ft. per inch thick *(minimum $2,960[~~2,400~~])*
Concrete replacement	$2.35[~~1.92~~] per sq. ft. per inch thick *(minimum $2,960[~~2,400~~])*
Reseeding	
Reseeding < 1-acre	$0.30[~~0.20~~] per sq. ft.
Reseeding ≥ 1-acre	$0.15[~~0.10~~] per sq. ft.

5.0 RATES

The following tables lists rates for equipment and personnel to perform a specific task that does not have a formulated task rate. The rates listed in this section shall be used when completing a cost estimate, as applicable.

5.1 Equipment

Air compressor (< 190 CFM)	$165[~~130~~] per day
Air compressor (> 190 CFM)	$282[~~233~~] per day
Anemometer	$41 per day
Asphalt (bag)	$31[~~25~~] per bag
Backhoe (trailer and accessories)	$83[~~65~~] per hour
Bentonite chips (bag)	$21[~~17~~] per bag
Concrete saw (hand or push)	$126[~~104~~] per day
Conductivity meter	$28[~~22~~] per day
Concrete corer	$242[~~200~~] per day
Dingo Stand on loader	$49[~~38~~] per hour
Direct-push unit (includes operator)	$1,646[~~1,296~~] per day
Direct-push unit (excluding operator)	$1,307[~~1,080~~] per day
Drum (55 gallon)	$125[~~42~~] each
Dissolved oxygen (DO) meter	$60[~~49~~] per day
Dump Truck	$49[~~40~~] per hour
Electronic water level indicator	$28[~~22~~] per day
Electronic water level recorder/transducer (two (2) well capability)	$69[~~54~~] per day
Electronic water level recorder/transducer (four (4) well capability)	$138[~~108~~] per day
Excavator (25,000 – 34,000 lbs.)	$908[~~750~~] per day
Excavator (35,000 – 44,000 lbs.)	$1,089[~~900~~] per day
Excavator (45,000 – 50,000 lbs.)	$1,271[~~1,050~~] per day
Fencing/chain link (100 feet with 10 posts)	$242[~~200~~] per month
Fencing/safety orange plastic (100 feet x 6 feet)	$212[~~175~~] each
Flame ionization detector (FID) / Organic vapor analyzer (OVA)	$200[~~165~~] per day
Flow regulator (air samples only)	$55[~~44~~] per day
Frac Tank (~21,000 gallon) including poly tanks or holding tanks	$91[~~75~~] per day
Generator	$105[~~86~~] per day
Grout pump	$103[~~81~~] per day
Hammer drill	$100 per day
Injection trailer (includes drill rig, operator, and mounted pumping system)	$3,388[~~2,800~~] per day
Jackhammer / Rock drill (air with bit and hose)	$107[~~88~~] per day
Jackhammer / Rock drill (electric with bit)	$148[~~122~~] per day
Lower explosive limit (LEL) meter	$49[~~38~~] per day
Loader (skid)	$51[~~42~~] per hour
Multi-meter (multiple measurement device)	$53[~~43~~] per day
Oil Water Interface Probe	$58 per day
pH Meter	$28[~~22~~] per day
Photoionization detector (PID) / Hnu meter	$146[~~120~~] per day

Portable toilet	Actual Cost + 15%
Post hole auger for Bobcat	$78[~~64~~] per hour
Power auger (hand held)	$85[~~70~~] per day
Pump (mini submersible)	$41 per day
Pump 2-inch submersible pump (electric)	$62[~~49~~] per day
Pump 2-inch trash pump	$90[~~71~~] per day
Pump 3-inch trash pump	$117[~~92~~] per day
Rebar #3 (10-foot section)	$8[~~6~~] each
Self-contained steam cleaning unit	$172[~~135~~] per day
Steam cleaner	$140[~~115~~] per day
Survey equipment	$62[~~49~~] per day
Trencher (walk behind)	$62[~~49~~] per hour
Track hoe (trailer and accessories)	$138[~~108~~] per hour
Traffic control (one-time startup cost if necessary above traffic control in formulated task rates)	$91[~~75~~] each
Traffic control, cones	$0.30[~~0.25~~] per day
Traffic control, safety barricade (50-foot roll)	$31[~~25~~] per day
Traffic control, signage	$3[~~2~~] per day
Tubing (5 ft)	$10 per 5 ft
Vacuum Truck	$182 per hour
Vapor Pin	$139 per pin
Velocity meter	$62[~~49~~] per day
Water truck (500 gallon), usage must be justified	$206[~~170~~] per day
Water truck (800 gallon capacity or greater), usage must be justified	$241[~~189~~] per day
YSI Sonde & Display System	$150 per day
6L Summa canister rental (weekly)	$69[~~54~~] each
1L Summa canister rental (weekly)	$69[~~54~~] each
Flow regulator rental (weekly)	$69[~~54~~] each
Copies	$0.14[~~0.11~~] per page
Faxes	$1.71[~~1.35~~] per page
Mileage, per mile for personnel vehicle (based upon the date of the directive issued)	State reimbursement rate established pursuant to 200 KAR 2:006

5.2 Personnel Rates

Professional, technical and labor rates include fringe benefits, contractor's overhead and profit. If reimbursement of labor rates is to be based upon time and material, reimbursement shall be based upon the task performed by an employee rather than the qualifications of the employee. See Appendix A for rates associated with certain tasks.

Title	Maximum Hourly Rate
Professional Engineer (licensed in KY)	$163[~~128.30~~]
Professional Geologist (registered in KY)	
Project Manager (geologist, engineer, scientist)	$134[~~104.98~~]
Field Technician	$97[~~75.82~~]
Toxicologist	$186[~~145.80~~]
Administrative Assistant	$67[~~52.49~~]
Draftsperson/CAD	$89[~~69.98~~]
Laborer	$60[~~46.66~~]
Equipment Operator	$67[~~52.49~~]
Electrical Contractor (license required)	$89[~~69.98~~]
Apprentice Plumber	$67[~~52.49~~]
Journeyman Plumber	$75[~~58.32~~]
Master Plumber (license required)	$82[~~64.15~~]
Flagger	$53[~~43.20~~]

5.3 Legal Services

The following table lists rates associated with reimbursement of legal services. An invoice from the legal service provider shall be provided with a written description explaining legal costs incurred.

Title	Maximum Hourly Rate
Sole practitioner	$163[~~128.30~~] per hour
Partner or principal in firm	$260[~~204.12~~] per hour
Associate in firm	$208[~~163.30~~] per hour
Paralegal	$89[~~69.98~~] per hour

6.0 APPENDIX A – Personnel Tasks and Responsibilities

Professional Classification	Tasks and Responsibilities
Professional Engineer Professional Geologist	Professionally registered in the Commonwealth of Kentucky to practice geology or licensed in the Commonwealth of Kentucky to practice engineering. Duties include direct practice and/or direct oversight of the practice of geology or engineering. Ancillary duties to the practice of geology or engineering typically include developing strategies, contract meetings with clients and developing contract cost estimates. Responsible for final data analysis and interpretation, review and approval of designs, reports, plans and specifications before submittal to client or regulatory agency. Performs limited, but appropriate, levels of fieldwork, but should be continually involved in the technical aspects that involve the practice and/or oversight of the practice of geology or engineering for the entire project and reporting, in addition to the oversight of lower level professional staff.
Project Manager (geologist, engineer, scientist)	Has responsibility for managing and implementing entire remediation projects, estimating costs within the project and controlling project budgets. Identifies and develops approaches for corrective action. Serves as the technical expert. Performs data compilation and presentation for analysis and interpretation by the P.E. or P.G., assists in the performance of hydraulic tests, and may prepare limited or technical sections of reports. Supervises the work of lower level professional and technical staff. • Project management • Report review • Report preparation • Development and oversight of project budget • Field work planning • Work plan preparation • Field direction, coordination, and management: coordinate with agency, client and subcontractors; equipment specifications review, selection and design; and acquire property access as required by the cabinet
Toxicologist	Uses and compiles data and information concerning the concentrations of chemical constituents that may be present in environmental media (e.g., soil, water, air), along with toxicological data, in order to characterize the nature and magnitude of health risks to humans (e.g., residents, workers, recreational visitors) and ecological receptors (e.g., birds, fish, wildlife). Primarily engaged when performing a Tier II or III risk assessment along with the P.E. or P.G.
Field Technician	Performs routine labor tasks related to installation, maintenance and repair of machinery and equipment. Performs routine tasks such as soil and groundwater sampling, well purging/development, etc. The majority of work performed in this classification is fieldwork. • Fieldwork preparation • Operation and maintenance of equipment • Well development • Remediation system installation • Waste handling • Sampling and monitoring • Decontamination