UST PSTEAF REIMBURSEMENT RATES

BREAKDOWN

Energy and Environment Cabinet
Division of Waste Management
Underground Storage Tank Branch
300 Sower Boulevard, Second Floor
Frankfort, Kentucky 40601
502-564-5981

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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.

Reimbursement shall be made in accordance with formulated task rates and rates identified within this document. Refer to 401 KAR 42:250 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) dollars and ten (10) 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	$15,516	$22,360	$24,642
2	$22,360	$25,097	$33,768	$39,241
3	$29,205	$34,223	$44,262	$53,843
4	$36,049	$41,067	$53,843	$63,882
5	$42,894	$47,912	$62,969	$77,116
Each Extra	$6,845	$6,845	$8,213	$10,040
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.				
These formulated task rates are based on invoices received for closure of UST systems.				
Permanent closure of piping greater than 35 feet outside the excavation zone.				$26 per foot *(per tank pit)*
This formulated task rate is based on invoices received for permanent closure of piping.				

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)			$2880
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	3.00	$489.00
Toxicologist	$186	0.00	$0.00
Project Manager (Geologist, Engineer, Scientist)	$134	13.00	$1,742.00
Drafting [figure support]	$89	3.50	$311.50
Admin. /Clerical [copy, filing, etc.…]	$67	4.00	$268.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$2,879.50**

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 per mile *(maximum $2,850)*
Assumption Vehicle travels an average of 55 miles per hour at 14 miles per gallon. Fuel costs $5.78 per gallon. Calculations $134 hourly rate for project manager divided by 55 miles per hour = **$2.44 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** **Total of bold items above = $2.84 per mile. $2.84 is adjusted to $2.85 for personnel and fuel cost.**	

Mileage allowed per mile for heavy equipment: includes all equipment, trailers and personnel needed to transport equipment.	$7.95 per mile *(minimum of $795)*
Assumption Vehicle travels an average of 50 miles per hour. Calculations $138 per hour for track hoe and trailer $67 hourly rate for equipment operator $138 plus $67 = $205 $205 divided by 50 miles per hour = **$4.10 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** $83 per hour for backhoe and trailer $67 hourly rate for equipment operator $83 plus $67 = $150 $150 divided by 50 miles per hour = **$3.00 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** **Total of bold items above = $7.92 per mile. $7.92 is adjusted to $7.95 per mile.**	

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 + 15%
This formulated task rate is based on invoices received for the disposal of a 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 per drum
This formulated task rate is based on invoices received for the transportation of a drum.	
Removal and transportation of tank contents associated with SOTRA closure activities.	Actual Cost + 15%
This formulated task rate is based on invoices received for the transportation of a drum.	
Disposal of tank contents associated with SOTRA closure activities	Actual Cost + 15%
This formulated task rate is based on invoices received for the disposal of tank contents.	
Fee for EPA Generator ID Number (if necessary)	$412 each
This formulated task rate is based on the fee for a generator ID number.	

2.5 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 per ton
Assumption A dump truck can carry 22.5 tons of material per hour and the borrow area is within 10 miles of the facility. Calculations $49 per hour for dump truck and $67 per hour for an equipment operator = $116 $116 per hour divided by 22.5 tons = $5.16 per ton for loading and transportation $83 per hour for a backhoe plus $67 for an equipment operator = $150 $150 divided by 22.5 tons = $6.67 per ton $5.16 per ton for loading and transportation plus $6.67 per ton for excavation and loading = **$11.82 per ton** **$4.15 per ton** to restore borrow area **Total of the bold items above = $15.97 per ton. $15.97 is adjusted to $16 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 per ton
Nearest quarry 50 to 100 one-way miles from the facility	$43 per ton
Nearest quarry over 100 one-way miles from the facility	$52 per ton

Assumptions

The average cost per ton for backfill material is **$22.20 per ton** (includes tax and 15% markup).
A dump truck travels 50 miles per hour with an average of 3 miles per gallon.
Fuel costs $5.78 per gallon
A dump truck will transport 22.5 tons
$49 per hour for dump truck and $67 per hour for an equipment operator = $116 per hour
This is limited to one-way mileage based on the assumption that backfill material will be picked up on the return trip from a disposal facility.

Calculations for Nearest Quarry within 50 One-way Miles of the Facility

50 miles divided by 3 miles per gallon = 16.67 gallons
16.67 gallons multiplied by $5.78 per gallon = $96.35 for fuel for a trip of 50 miles
1-hour for dump truck and operator ($116 per hour) divided by 22.5 tons = **$5.16 per ton**
$96.35 for fuel for a trip of 50 miles divided by 22.5 tons = **$4.28 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $33.13 per ton. $33.13 is adjusted to $34 per ton.

Calculations for Nearest Quarry 50 to 100 One-way Miles from the Facility

100 miles divided by 3 miles per gallon = 33.33 gallons
33.33 gallons multiplied by $5.78 per gallon = $192.65 for fuel for a trip of 100 miles
2 hours for dump truck and operator ($116 per hour) = $232
$232 divided by 22.5 tons = **$10.31 per ton**
$192.65 for fuel for a trip of 100 miles divided by 22.5 tons = **$8.56 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $42.56 per ton. $42.56 is adjusted to $43 per ton.

Calculations for Nearest Quarry over 100 One-way Miles from the Facility

150 miles divided by 3 miles per gallon = 50 gallons
50 gallons multiplied by $5.78 per gallon = $289 for fuel for a trip of 150 miles
3 hours for dump truck and operator ($116 per hour) divided by 22.5 tons = **$15.47 per ton**
$289 for fuel for a trip of 150 miles divided by 22.5 tons = **$12.84 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $51.38 per ton. $51.38 is adjusted to $52 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 per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103 per ton
Nearest landfill over 100 one-way miles from the facility	$122 per ton

This includes transportation and disposal in a landfill of debris generated as a result of permanent closure for the facility. Debris includes asphalt, concrete and contaminated material. Reimbursement is based upon the nearest landfill to determine the allowable rate.

Assumptions

The cost per ton for disposal or treatment at a permitted facility is **$65** (includes tax and 15% markup).
A dump truck travels 50 miles per hour with an average of 3 miles per gallon.
Fuel costs $5.78 per gallon.
A dump truck will transport 22.5 tons.
$49 per hour for dump truck and $67 per hour for an equipment operator = $116 per hour
The nearest landfill is within 50 miles.
A round trip will be required.

Calculations for Nearest Landfill 50 One-way Miles from the Facility

50 miles divided by 3 = 16.67 gallons
16.67 gallons multiplied by $5.78 per gallon = $96.35 for fuel
1-hour for dump truck and operator ($116 per hour) divided by 22.5 tons = **$5.16 per ton**
$96.35 for fuel for a trip of 50 miles divided by 22.5 tons = **$4.28 per ton for fuel**
The total of the bold items above = $9.44 per ton. $9.44 multiplied by 2 = $18.88 per ton for round trip.

$65 per ton plus $18.88 per ton for round trip = $83.88 per ton. $83.88 is adjusted to $84 per ton.

Calculations for Nearest Landfill 50 to 100 One-way Miles from the Facility

100 miles divided by 3 = 33.33 gallons
33.33 gallons multiplied by $5.78 per gallon = $192.65 for fuel
2 hours for dump truck and operator ($116 per hour) = $232
$232 divided by 22.5 tons = **$10.31 per ton**
$192.65 for fuel for a trip of 100 miles divided by 22.5 tons = **$8.56 per ton for fuel**
The total of the bold items above = $18.87 per ton. $18.87 multiplied by 2 = $37.75 per ton for round trip.

$65 per ton plus $37.75 per ton for round trip = $102.75 per ton. $102.75 is adjusted to $103 per ton.

Calculations for Nearest Landfill Over 100 One-way Miles from the Facility

150 miles divided by 3 miles per gallon = 50 gallons
50 gallons multiplied by $5.78 per gallon = $289 for fuel for a trip of 150 miles
3 hours for dump truck and operator ($116 per hour) divided by 22.5 tons = **$15.47 per ton**
$289 for fuel for a trip of 150 miles divided by 22.5 tons = **$12.84 per ton for fuel**
The total of the bold items above = $28.31 per ton. $28.31 multiplied by 2 = $56.62 per ton for round trip.

$65 per ton plus $56.62 per ton for round trip = $121.62 per ton. $121.62 is adjusted to $122 per ton.

2.6 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%
This cost reimbursement requires a copy of the original receipt of contaminated pit water disposed at a wastewater treatment plan or recycling facility to be submitted.	
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%
This cost reimbursement requires a copy of the original receipt of contaminated water disposed at a wastewater treatment plant or a recycling facility to be submitted.	

2.7 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.

These formulated task rates are based on invoices received.	
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 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 per sample
BTEX, Trip Blank (water only)	$110 per sample
Grain Size Analysis	$262 per sample
Ignitability	$76 per sample
Lead, Dissolved (groundwater)	$69 per sample
Lead, Total (soil)	$69 per sample
PAH (Method 8270)	$291 per sample
Paint Filter Test	$66 per sample
pH	$55 per sample
Waste Characterization	Actual Cost + 15%

2.8 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 per foot will be added for each soil boring over 30 feet.	$488 per soil boring up to 30 feet in depth *(minimum $976)*
This includes direct-push equipment, two-man drill crew and project manager (for oversight), equipment decontamination, backfilling of void and soil sample collection. This rate only applies when a soil boring is not converted to a monitoring well. Assumptions A 30-foot boring is installed using direct push equipment. Continuous soil samples are collected. 8 borings can be installed in an 8-hour day. Calculations $134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day $1,072 divided by 8 borings = **$134 per soil boring** $60 hour rate for laborer multiplied by 8 hours = $480 $480 divided by 8 borings = **$60 per boring** $1,646 for direct push equipment divided by 8 borings = **$205.75 per boring** $434 per day for a two-man drill crew divided by 8 = **$54.25 per boring** $134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268 per day $268 per day divided by 8 borings = **$33.50 per boring** **Total of bold items above = $487.50 per boring. $487.50 is adjusted to $488 per boring** (with a minimum reimbursement of $976). An additional $17 per foot will be added to each boring over 30 feet.	

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 per mile *(maximum $2,850)*
Assumption Vehicle travels an average of 55 miles per hour at 14 miles per gallon. Fuel costs $5.78 per gallon. Calculations $134 hourly rate for project manager divided by 55 miles per hour = **$2.44 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** **Total of bold items above = $2.85 per mile for personnel and fuel cost.**	
Mileage allowed per mile for heavy equipment: includes all equipment, trailers and personnel needed to transport equipment.	$7.95 per mile *(minimum of $795)*
Assumption Vehicle travels an average of 50 miles per hour. Calculations $138 per hour for track hoe and trailer $67 hourly rate for equipment operator $136 plus $67 = $205 $205 divided by 50 miles per hour = **$4.10 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** $83 per hour for backhoe and trailer $67 hourly rate for equipment operator $83 plus $67 = $150 $150 divided by 50 miles per hour = **$3.00 per mile** **Total of bold items above = $7.92 per mile. $7.92 is adjusted to $7.95 per mile.**	

Mobilization and demobilization of drilling equipment and support vehicle: includes drill rig or direct-push unit, two-man crew, labor for gathering of equipment, tools, travel time, and all steam cleaning.	$7.95 per mile *(minimum of $795)*
Assumption Vehicle travels an average of 50 miles per hour. Calculations $138 per hour for track hoe and trailer $67 hourly rate for equipment operator $138 plus $67 = $205 $205 divided by 50 miles per hour = **$4.10 per mile** $83 per hour for backhoe and trailer $67 hourly rate for equipment operator $83 plus $67 = $150 $150 divided by 50 miles per hour = **$3.00 per mile** 14 miles per gallon at $5.78 per gallon = **$0.41 per mile** **Total of bold items above = $7.92 per mile. $7.92 is adjusted to $7.95 per mile.**	

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 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.	
This assumes **$155 per night** for hotel (average of rates based on the following areas: Lexington, Louisville, Ashland, and Bowling Green). This includes **$57 per day** for meals ($11 = breakfast, $16 = lunch, $30 = dinner). Incidentals = **$5** **Total of bold items above = $217 per day**	
Additional $2.85 per mile for mileage when per diem is allowed: maximum thirty (30) local miles.	$86 for each Per Diem
Assumption Vehicle travels an average of one-way 15 miles locally per day. Thirty (30) miles round trip per day. Calculations $0.41 per mile for fuel costs x 30 miles round trip = **$12.30 per diem** $2.44 per mile for project manager x 30 miles round trip = **$73.20 per diem** **$2.85 per mile multiplied by thirty (30) miles = $85.50 for each per diem. $85.50 is adjusted to $86 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 per day
This formulated task rate is based on commonly used equipment during field activities.	
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 per day
This formulated task rate is based on commonly used equipment during vapor investigation field activities.	
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 per day
This formulated task rate is based on commonly used tools of the trade and is consistent with other states.	

3.4 Asphalt/Concrete Removal and Disposal

Removal of Asphalt	
Asphalt (3-inch thickness, per square foot)	$0.70 per sq. ft.
Cost of additional thickness per inch	$0.20 per sq. ft.
This formulated task rate is based on invoices received for asphalt removal.	
Removal of Concrete (concrete pad, per square foot)	
4-inch thickness	$0.70 per sq. ft.
6-inch thickness	$1.05 per sq. ft.
9-inch thickness	$2.10 per sq. ft.
10-inch or more thickness	$5.35 per sq. ft.
With rebar	Add 15% to cost per sq ft
This formulated task rate is based on invoices received for concrete removal.	
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 per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103 per ton
Nearest landfill over 100 one-way miles from the facility	$122 per ton
Refer to the cost breakdown under Section 2.5 of this manual.	

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 per ton *(minimum of $3,675)*
This includes excavating contaminated material with the use of a tracked excavator, an operator, a laborer and a project manager. Assumption 500 tons can be excavated in an 8-hour day. Calculations $83 per hour for backhoe multiplied by 8 hours = **$664** $67 hourly rate for equipment operator multiplied by 8 hours = **$536** $60 hourly rate for laborer multiplied by 8 hours = **$480** $134 hourly rate for project manager (for scheduling) multiplied by 2 hours = **$268** $134 hourly rate for project manager (for oversight) multiplied by 8 hours = **$1,072** $217 for two-man crew for per diem = **$434** **$206** for additional traffic control **Total of bold items above = $3,660 per ton.** **$3,660 divided by 500 tons = $7.32 per ton. $7.32 is adjusted to $7.35 per ton** (with a minimum reimbursement of $3,675).	
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 per ton
Assumption A dump truck can carry 22.5 tons of material per hour and the borrow area is within 10 miles of the facility. Calculations Dump truck for $49 per hour and an equipment operator for $67 per hours = $116 $116 per hour divided by 22.5 tons = $5.16 per ton for loading and transportation $83 per hour for a backhoe plus $67 for an equipment operator = $150 $150 divided by 22.5 tons = $6.67 per ton $5.16 per ton for loading and transportation plus $6.67 per ton for excavation and loading = **$11.82 per ton** **$4.11 per ton** to restore borrow area **Total of the bold items above = $15.93 per ton. $15.93 is adjusted to $16 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 per ton
Nearest quarry 50 to 100 one-way miles from the facility	$43 per ton
Nearest quarry over 100 one-way miles from the facility	$52 per ton

Assumptions
The average cost per ton for backfill material is **$22.20 per ton** (includes tax and 15% markup).
A dump truck travels 50 miles per hour with an average of 3 miles per gallon.
Fuel costs $5.78 per gallon
A dump truck will transport 22.5 tons
$49 per hour for dump truck and $67 per hour for an equipment operator = $116 per hour
This is limited to one-way mileage based on the assumption that backfill material will be picked up on the return trip from a disposal facility.

Calculations for Nearest Quarry within 50 One-way Miles of the Facility
50 miles divided by 3 miles per gallon = 16.67 gallons
16.67 gallons multiplied by $5.78 per gallon = $96.35 for fuel for a trip of 50 miles
1-hour for dump truck and operator ($116 per hour) divided by 22.5 tons = **$5.16 per ton**
$96.35 for fuel for a trip of 50 miles divided by 22.5 tons = **$4.28 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $33.13 per ton. $33.13 is adjusted to $34 per ton.

Calculations for Nearest Quarry 50 to 100 One-way Miles from the Facility
100 miles divided by 3 miles per gallon = 33.33 gallons
33.33 gallons multiplied by $5.78 per gallon = $192.65 for fuel for a trip of 100 miles
2 hours for dump truck and operator ($116 per hour) = $232
$232 divided by 22.5 tons = **$10.31 per ton**
$192.65 for fuel for a trip of 100 miles divided by 22.5 tons = **$8.56 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $42.56 per ton. $42.56 is adjusted to $43 per ton.

Calculations for Nearest Quarry over 100 One-way Miles from the Facility
150 miles divided by 3 miles per gallon = 50 gallons
50 gallons multiplied by $5.78 per gallon = $289 for fuel for a trip of 150 miles
3 hours for dump truck and operator ($116 per hour) divided by 22.5 tons = **$15.47 per ton**
$289 for fuel for a trip of 150 miles divided by 22.5 tons = **$12.84 per ton for fuel**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 8 hours = $33.50 per hour
$33.50 per hour divided by 22.5 tons = **$1.49 per ton**

The total of the bold items above = $52 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 per ton

Assumptions
500 tons of backfill material can be placed in one 8-hour day with a backhoe and compaction with a vibratory sheepsfoot compactor.

Calculations
$83 per hour for backhoe multiplied by 8 hours = $664
$664 divided by 500 tons = **$1.33 per ton**
$67 hourly rate for equipment operator multiplied by 8 hours = $536
$536 divided by 500 tons = **$1.07 per ton**

$567 per day for a vibratory sheepsfoot compactor divided by 500 tons = **$1.13 per ton**
$60 hourly rate for laborer multiplied by 8 hours = $480
$480 divided by 500 tons = **$0.96 per ton**
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072
$1,072 divided by 500 tons = **$2.14 per ton**

The total of the bold items above = $6.64 per ton. $6.64 is adjusted to $6.65 per ton.

Trenching (per linear foot)	$29 per ln. ft. at 5 feet of depth

Assumptions
Trenches are twenty-four (24) inches wide and 5 feet deep.
80 feet of trenching can be completed in one 8-hour day.

$67 hourly rate for equipment operator multiplied by 8 hours = **$536**
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = **$1,072**
$250 per day for a mini-excavator
$134 hourly rate for project manager (for scheduling) multiplied by 3 hours = **$402**
The total of the bold items above = $2,260 per day

$2,260 per day divided by 80 feet of trenching = $28.25 per linear foot for each 5 feet depth. $28.25 is adjusted to $29 per linear foot for each 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 per ton
Nearest landfill 50 to 100 one-way miles from the facility	$103 per ton
Nearest landfill over 100 one-way miles from the facility	$122 per ton

This includes transportation and disposal in a landfill of debris generated as a result of corrective action for the facility. Debris includes asphalt, concrete and contaminated material. Reimbursement is based upon the nearest landfill to determine the allowable rate.

Assumptions

The cost per ton for disposal or treatment at a permitted facility is **$65** (includes tax and 15% markup).
A dump truck travels 50 miles per hour with an average of 3 miles per gallon.
Fuel costs $5.78 per gallon.
A dump truck will transport 22.5 tons.
$49 per hour for dump truck and $67 per hour for an equipment operator = $116 per hour
The nearest landfill is within 50 miles.
A round trip will be required.

Calculations for Nearest Landfill 50 One-way Miles from the Facility

50 miles divided by 3 miles per gallon = 16.67 gallons
16.67 gallons multiplied by $5.78 per gallon = $96.35 for fuel for a trip of 50 miles
1-hour for dump truck and operator ($116 per hour) = $116
$116 divided by 22.5 tons = **$5.16 per ton**
$96.35 for fuel for a trip of 50 miles divided by 22.5 tons = **$4.28 per ton for fuel**
The total of the bold items above = $9.44 per ton. $9.44 multiplied by 2 = $18.88 per ton for round trip.

$65 per ton plus $18.88 per ton for round trip = $83.88 per ton. $83.88 is adjusted to $84 per ton.

Calculations for Nearest Landfill 50 to 100 One-way Miles from the Facility

100 miles divided by 3 = 33.33 gallons
33.33 gallons multiplied by $5.78 per gallon = $192.65 for fuel for a trip of 100 miles
2 hours for dump truck and operator ($116 per hour) = $232
$232 divided by 22.5 tons = **$10.31 per ton**
$192.65 for fuel for a trip of 100 miles divided by 22.5 tons = **$8.56 per ton for fuel**
The total of the bold items above = $18.87 per ton. $18.87 multiplied by 2 = $37.75 per ton for round trip.

$65 per ton plus $37.75 per ton for round trip = $102.75 per ton. $102.75 is adjusted to $103 per ton.

Calculations for Nearest Landfill Over 100 One-way Miles from the Facility

150 miles divided by 3 miles per gallon = 50 gallons
50 gallons multiplied by $5.78 per gallon = $289 for fuel for a trip of 150 miles
3 hours for dump truck and operator ($116 per hour) = $348
$348 divided by 22.5 tons = **$15.47 per ton**
$289 for fuel for a trip of 150 miles divided by 22.5 tons = **$12.84 per ton for fuel**
The total of the bold items above = $28.31 per ton. $28.31 multiplied by 2 = $56.62 per ton for round trip.

$65 per ton plus $56.62 per ton for round trip = $121.62 per ton. $121.62 is adjusted to $122 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 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%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
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%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
Transportation of contaminated water	Actual Cost + 15%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
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%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
Discharge of water permitted by a KPDES permit into a storm sewer or on the ground surface.	Actual Cost + 15%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
Discharge of water below site-specific screening levels into an excavation.	Actual Cost + 15%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	
Free Product Recovery (by hand bailing, absorbent socks, etc.) per well as directed by the cabinet.	$114 per well
This includes personnel and time to record and estimate the amount of free product removed. Additional reimbursement will be available for applicable equipment and tools of the trade in Section 3.3 of this manual. <u>Assumption</u> 8 wells can be hand bailed in an 8-hour day <u>Calculations</u> $97 hourly rate for field technician multiplied by 1-hour = **$97 per well** $134 hourly rate for project manager (for scheduling) for 1-hour $134 divided by 8 wells = **$16.75 per well** **Total of bold items above = $113.75 per well. $113.75 is adjusted to $114 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 per well up to 30 feet in depth *(with soil sampling)*
$85 per foot per well over 30 feet with soil sampling	$2,062 per well up to 30 feet in depth *(without soil sampling)*
$69 per foot per well over 30 feet without soil sampling	

This includes all well construction and completion materials, equipment decontamination, surface preparation, completion and submittal of well records, two-man drill crew and project manager (for oversight).

Assumptions for $2,550 per well up to 30 feet in depth *(with soil sampling)* A 30 foot 2-inch well is installed using a hollow stem auger.
Continuous soil samples are collected.
4 wells can be installed in an 8-hour day.
$48.01 per foot accounts for equipment and materials.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 4 wells = $268
$268 divided by 30 feet = **$8.93 per foot**

$1,646 for direct push unit divided by 4 wells = $411.50
$411.50 for monitoring well surface completion divided by 30 feet = **$13.72 per foot**

$60 hourly rate for laborer multiplied by 8 hours = $480
$480 divided by 4 hours = $120
$120 divided by 30 feet = **$4 per foot**

$434 per day for a two-man drill crew divided by 4 = $108.50
$108.50 divided by 30 feet = **$3.62 per foot**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 4 wells = $67
$67 divided by 30 feet = **$2.23 per foot Total of bold**

items above = $32.50 per foot

$48.01 per foot for equipment and materials plus $32.50 per foot = $80.51 per foot
$80.51 per foot multiplied by 30 feet = $2,415.30

$2,415.30 plus $134 per well for surveying = $2,549.30 per well. $2,549.30 is adjusted to $2,550 per well. An additional $85 per foot will be added to each foot installed over 30 feet.

Assumptions for $2,062 per well up to 30 feet in depth *(without soil sampling)*
A 30 foot 2-inch well is installed using a hollow stem auger.
4 wells can be installed in an 8-hour day.
$48.01 per foot accounts for equipment and materials.

$2,549.30 per well from above minus $488 (soil boring sampling cost) = $2,061.30 per well. $2,061.30 is adjusted to $2,062 per well. An additional $69 per foot will be added to each foot installed over 30 feet.

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 per well up to 30 feet in depth *(with soil sampling)*
$113 per foot per well over 30 feet with soil sampling	$2,885 per well up to 30 feet in depth *(without soil sampling)*
$97 per foot per well over 30 feet without soil sampling	

This includes all well construction in bedrock and completion materials, equipment decontamination, surface preparation, completion and submittal of well records, two-man drill crew and project manager (for oversight).

Assumptions for $3,373 per well up to 30 feet in depth *(with soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
Continuous soil samples are collected in overburden.
4 wells can be installed in an 8-hour day.
$75.44 per foot accounts for equipment and materials.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 4 wells = $268
$268 divided by 30 feet = **$8.93 per foot**

$1,646 for direct push unit divided by 4 wells = $411.50
$411.50 for monitoring well surface completion divided by 30 feet = **$13.72 per foot**

$434 per day for a two-man drill crew divided by 4 = $108.50
$108.50 divided by 30 feet = **$3.62 per foot**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 4 wells = $67
$67 divided by 30 feet = **$2.23 per foot**

Total of bold items above = $32.50 per foot

$75.44 per foot for equipment and materials plus $32.50 per foot = $107.94 per foot
$107.94 per foot multiplied by 30 feet = $3,238.20

$3,238.20 plus $134 per well for surveying = $3,372.20 per well. $3,372.20 is adjusted to $3,373 per well. An additional $113 per foot will be added to each foot installed over 30 feet.

Assumptions for $2,885 per well up to 30 feet in depth *(without soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
4 wells can be installed in an 8-hour day.
$75.44 per foot accounts for equipment and materials.

$3,372.20 per well from above minus $488 (soil boring sampling cost) = $2,884.20 per well. $2,884.20 is adjusted to $2,885 per well. An additional $97 per foot will be added to each foot installed over 30 feet.

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 per well up to 30 feet in depth *(with soil sampling)*
$149 per foot per well over 30 feet with soil sampling	$3,982 per well up to 30 feet in depth *(without soil sampling)*
$133 per foot per well over 30 feet without soil sampling	

This includes all well construction in bedrock and completion materials, equipment decontamination, surface preparation, completion and submittal of well records, two-man drill crew and project manager (for oversight). For double cased wells, an additional mobilization or per diem for the project manager (for oversight) will be included, if applicable.

Assumptions for $4,470 per well up to 30 feet in depth *(with soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
Continuous soil samples are collected in overburden.
4 wells can be installed in an 8-hour day.

$112.01 per foot accounts for equipment and materials.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 4 wells = $268
$268 divided by 30 feet = **$8.93 per foot**

$1,646 for direct push unit divided by 4 wells = $411.50
$411.50 for monitoring well surface completion divided by 30 feet = **$13.72 per foot**

$60 hourly rate for laborer multiplied by 8 hours = $480
$480 divided by 4 wells = $120
$120 divided by 30 feet = **$4 per foot**

$434 per day for a two-man drill crew divided by 4 = $108.50
$108.50 divided by 30 feet = **$3.62 per foot**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 4 wells = $67
$67 divided by 30 feet = **$2.23 per foot**

Total of bold items above = $32.50 per foot

$112.01 per foot for equipment and materials plus $32.50 per foot = $144.51 per foot
$144.51 per foot multiplied by 30 feet = $4,335.30

$4,335.30 plus $134 per well for surveying = $4,469.30 per well. $4,469.30 is adjusted to $4,470 per well. An additional $149 per foot will be added to each foot installed over 30 feet.

Assumptions for $3,982 per well up to 30 feet in depth *(without soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
4 wells can be installed in an 8-hour day.

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 per well up to 30 feet in depth *(with soil sampling)*
$113 per foot per well over 30 feet with soil sampling	$2,885 per well up to 30 feet in depth *(without soil sampling)*
$97 per foot per well over 30 feet without soil sampling	

This includes all well construction and completion materials, equipment decontamination, surface preparation, completion and submittal of well records, two-man drill crew and project manager (for oversight).

Assumptions for $3,373 per well up to 30 feet in depth *(with soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
Continuous soil samples are collected in overburden.
4 wells can be installed in an 8-hour day.
$75.44 per foot accounts for equipment and materials.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 4 wells = $268
$268 divided by 30 feet = **$8.93 per foot**

$1,646 for direct push unit divided by 4 wells = $411.50
$411.50 for monitoring well surface completion divided by 30 feet = **$13.72 per foot**

$60 hourly rate for laborer multiplied by 8 hours = $480
$480 divided by 4 wells = $120
$120 divided by 30 feet = **$4 per foot**

$434 per day for a two-man drill crew divided by 4 = $108.50
$108.50 divided by 30 feet = **$3.62 per foot**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268
$268 divided by 4 wells = $67
$67 divided by 30 feet = **$2.23 per foot**

Total of bold items above = $32.50 per foot

$75.44 per foot for equipment and materials plus $32.50 per foot = $107.94 per foot
$107.94 per foot multiplied by 30 feet = $3,238.20

$3,238.50 plus $134 per well for surveying = $3,372.20 per well. $3,372.20 is adjusted to $3,373 per well. An additional $113 per foot will be added to each foot installed over 30 feet.

Assumptions for $2,885 per well up to 30 feet in depth *(without soil sampling)*
A 30 foot 2-inch well is installed using an air rotary drill.
4 wells can be installed in an 8-hour day.
$75.44 per foot accounts for equipment and materials.

$3,372.20 per well from above minus $488 (soil boring sampling cost) = $2,884.20 per well. $2,884.20 is adjusted to $2,885 per well. An additional $97 per foot will be added to each foot installed over 30 feet.

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 per well (minimum of $1,476)

Assumption
Typical well depth is less than 30 feet. 1-hour necessary to abandon a well by this method.

Calculations
$134 hourly rate for project manager oversight for 1-hour = **$134 per well**
$67 hourly rate for equipment operator for 1-hour = **$67 per well**
$60 hourly rate for laborer for 1-hour = **$60 per well**
$134 hourly rate for project manager scheduling time multiplied by 1-hour = **$134 per well**
$9.60 per foot for equipment and material multiplied by 30 feet = **$288 per well**

$217 per day for a two-man drill crew multiplied by 2 = $434
$434 divided by 8 wells = **$54.25 per well**

Total of bold items above = $737.25 per well. $737.25 is adjusted to $738 per well.

Overburden Well Abandonment during Over-excavation: includes the cost for the preparation and submission of variance request and well records.	$201 per well

Assumptions
Material, equipment and labor, oversight personnel, photographic documentation, and surface material replacement are included in the over-excavation costs.

Calculations
$134 hourly rate for project manager scheduling time multiplied by 1-hour = **$134 per well**
$134 hourly rate for project manager multiplied by 0.5 hours = **$67 per record**

Total of bold items above = $201 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 per foot will be added for each well abandoned over 30 feet.	$1,199 per well up to 30 feet in depth

Assumption
2 hours are necessary to abandon a 30 foot well by this method.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 2 hours = **$268 per well**
$67 hourly rate for equipment operator (driller) multiplied by 2 hours = **$134 per well**
$60 hourly rate for laborer multiplied by 2 hours = **$120 per well**
$134 hourly rate for project manager (for scheduling) multiplied by 0.25 hours = **$33.50 per well**
$17.83 per foot for equipment and material multiplied by 30 feet = **$534.90 per well**

$217 per day for a two man crew multiplied by 2 = $434
$434 divided by 4 wells = **$108.50 per well**

Total of bold items above = $1,198.90 per well. $1,198.90 is adjusted to $1,199 per well. An additional $40 per foot will be added for each well abandoned over 30 feet.

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 per foot will be added for each well abandoned over 30 feet.	$1,528 per well up to 30 feet in depth
Assumption 2 hours are necessary to abandon a 30 foot well by this method. Calculations $134 hourly rate for project manager (for oversight) multiplied by 2 hours = **$268 per well** $67 hourly rate for equipment operator (driller) multiplied by 2 hours = **$134 per well** $60 hourly rate for laborer multiplied by 2 hours = **$120 per well** $134 hourly rate for project manager (for scheduling) multiplied by 0.25 hours = **$33.50 per well** $28.80 per foot for equipment and material multiplied by 30 feet = **$864 per well** $217 per day for a two man crew multiplied by 2 = $434 $434 divided by 4 wells = **$108.50 per well** **Total of bold items above = $1,528 per well.** An additional $51 per foot will be added for each well abandoned over 30 feet.	
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 per foot will be added for each well abandoned over 30 feet.	$2,019 per well up to 30 feet in depth
Assumption 3 hours are necessary to abandon a 30 foot well by this method. Calculations $134 hourly rate for project manager (for oversight) multiplied by 3 hours = **$402 per well** $67 hourly rate for equipment operator (driller) multiplied by 3 hours = **$201 per well** $60 hourly rate for laborer multiplied by 3 hours = **$180 per well** $134 hourly rate for project manager (for scheduling) multiplied by 0.25 hours = **$33.50 per well** $34.29 per foot for equipment and material multiplied by 30 feet = **$1,028.70 per well** $217 per day for a two man crew multiplied by 2 = $434 $434 divided by 2.5 wells = **$173.60 per well** **Total of bold items above = $2,018.80 per well. $2,018.80 is adjusted to $2,019 per well.** An additional $68 per foot will be added for each well abandoned over 30 feet.	
Abandonment records for lost or destroyed wells: includes preparation and submission of well plugging records in lieu of the well abandonment cost.	$67 per record
Calculations $134 hourly rate for project manager multiplied by 0.5 hours = **$67 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 per foot will be added for each soil boring over 30 feet.	$488 per soil boring up to 30 feet in depth *(minimum $976)*

This includes direct-push equipment, two-man drill crew and project manager (for oversight), equipment decontamination, backfilling of void and soil sample collection. This rate only applies when a soil boring is not converted to a monitoring well.

Assumptions
A 30-foot boring is installed using direct push equipment.
Continuous soil samples are collected.
8 borings can be installed in an 8-hour day.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 8 borings = **$134 per boring**

$60 hour rate for laborer multiplied by 8 hours = $480
$480 divided by 8 borings = **$60 per boring**

$1,646 for direct push equipment divided by 8 borings = **$205.75 per boring**

$434 per day for a two-man drill crew divided by 8 = **$54.25 per boring**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268 per day
$268 per day divided by 8 borings = **$33.50 per boring**

Total of bold items above = $487.50 per boring. $487.50 is adjusted to $488 per boring (with a minimum reimbursement of $976). An additional $17 per foot will be added to each boring over 30 feet.

Installation and construction of temporary monitoring well: includes down-hole material, well development, abandonment, and decontamination of equipment. An additional $42 per foot will be added for each well installed over 30 feet.	$1,239 per temporary monitoring well

This includes direct push equipment, two-man drill crew and project manager (for oversight), equipment decontamination, abandonment, and soil sample collection.

Assumptions
A 30-foot temporary monitoring well is installed using direct push equipment. Continuous soil samples are collected.
8 temporary monitoring wells can be installed in an 8-hour day.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 8 temporary monitoring wells = **$134 per temporary monitoring well**

$1,646 for direct push equipment divided by 8 temporary monitoring wells = **$205.75 per temporary monitoring well**

$60 hour rate for laborer multiplied by 8 hours = $480
$480 divided by 8 borings = **$60 per boring**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268 per day
$268 per day divided by 8 temporary monitoring wells = **$33.50 per temporary monitoring well.**

$434 per day for a two-man drill crew divided by 8 = **$54.25 per temporary monitoring well**

$20.57 for material and abandonment multiplied by 30 feet per temporary monitoring well = **$617.10 per temporary monitoring well**

$134 per temporary monitoring well for surveying

Total of bold items above = $1,238.60 per temporary monitoring well. $1,238.60 is adjusted to $1,239. An additional $42 per foot will be added to each temporary assessment well over 32 feet.

Installation and construction of piezometer: includes down-hole material, well development, backfilling of void, and decontamination of equipment. An additional $42 per foot will be added for each piezometer installed over 30 feet.	$1,239 per piezometer

This includes direct push equipment, operator and project manager (for oversight), equipment decontamination, backfilling of void and soil sample collection.

Assumptions
A 30-foot piezometer is installed using direct push equipment.
Continuous soil samples are collected.
8 piezometers can be installed in an 8-hour day.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 8 piezometers = **$134 per piezometer**

$1,646 for direct push equipment divided by 8 piezometers = **$205.75 per piezometer**

$60 hour rate for laborer multiplied by 8 hours = $480
$480 divided by 8 borings = **$60 per boring**

$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268 per day
$268 per day divided by 8 piezometers = **$33.50 per piezometer**
$434 per day for a two-man drill crew divided by 8 = **$54.25 per piezometer**

$20.57 for material and abandonment multiplied by 30 feet per piezometer = **$617.10 per piezometer**

$134 per piezometer for surveying

Total of bold items above = $1,238.60 per piezometer. $1,238.60 is adjusted to $1,239 per piezometer. An additional $42 per foot will be added for each piezometer installed over 30 feet.

Domestic-Use Cistern or Domestic-Use Well Abandonment (as directed by the cabinet)	$2,423 each

Assumption
Grout costs $96.01 per cubic yard.
4 hours are necessary to abandon a domestic-use well or a 2,000 gallon domestic-use cistern.

Calculations
$134 hourly rate for project manager (for oversight) multiplied by 4 hours = **$536 per well**
$67 hourly rate for equipment operator (driller) multiplied by 4 hours = **$268 per well**
$60 hourly rate for laborer multiplied by 4 hours = **$240 per well**
$134 hourly rate for project manager (for scheduling) multiplied by 1.5 hours = **$201 per well**
$96.01 per cubic yard for grout multiplied by 10 cubic yards = **$960.10 for grout**

$217 per day for a two-man drill crew multiplied by 2 = $434
$434 divided by 2 wells **= $217 per well**

Total of bold items above = $2,422.10 per domestic-use well or domestic-use cistern. $2,422.10 is adjusted to $2,423 per domestic-use well or domestic-use cistern.

Water sampling per well: includes gauging and purging for monitoring wells as directed by the cabinet.	$114 per well

Assumptions
1-hour is necessary to sample each well.
8 wells can be sampled in one 8-hour day.

Calculations
$134 hourly rate for project manager (scheduling) divided by 8 wells = **$16.75 per well**
$97 hourly rate for field technician = **$97 per well**

Total of the bold items above = $113.75 per well. $113.75 is adjusted to $114 per well.

Low-Flow Water Sampling per well: includes gauging and purging for monitoring wells as directed by the cabinet.	$228 per well

Assumptions
2 hours are necessary to collect a low-flow sample from each well.
4 wells can be sampled in one 8-hour day.

Calculations
$134 hourly rate for project manager (scheduling) divided by 4 wells = **$33.50 per well**
$97 hourly rate for field technician multiplied by 2 = **$194 per well**

Total of the bold items above = $227.50 per well. $227.50 is adjusted to $228 per well.

Surface Water Sampling (as directed by the cabinet)	$35 per sample point

Assumption
20 minutes are necessary to collect a surface water sample.

Calculation
$97 hourly rate for field technician multiplied by 0.33 hours = $32.01 per well. $32.01 is adjusted to $33 per well.

Well Gauging, per well	$50 per well

Assumption
30 minutes are necessary to gauge a well.

Calculation
$97 hourly rate for field technician multiplied by 0.5 hours = $48.50 per well. $48.50 is adjusted to $50 per well (formulated task rate remains the same).

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 per well pad replacement

This includes personnel time, materials and equipment needed to replace a damaged monitoring well pad.

$67 hourly rate for equipment operator (driller)
$60 hourly rate for laborer
$237.64 for materials and equipment
$134 per monitoring well for surveying

Total of bold items above = $498.64 per monitoring well pad replacement. $498.64 is adjusted to $500 per monitoring well pad replacement.

Rock Coring	$178 per foot

This includes personnel time, materials and equipment needed for rock coring.

Set-up time $205.74 per core divided by 30 feet = **$6.86 per foot of core**
$134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day
$1,072 divided by 8 cores = **$134 per foot of core**
$37.03 per foot of core for equipment

Total of bold items above = $177.89 per foot of core. $177.89 is adjusted to $178 per foot of core.

Daily Rate for Direct-Push (as directed by the cabinet for bedrock soundings)	$3,120 per day

This includes personnel time, materials and equipment needed for bedrock soundings.

$134 hourly rate for project manager (for oversight) multiplied by 8 hours = **$1,072 per day**
$1,646 for direct push equipment
$134 hourly rate for project manager (for scheduling) multiplied by 3 hours = **$402 per day**

Total of bold items above = $3,120 per day.

Shoring Evaluation Boring soundings. An additional $3 per foot will be added for each shoring evaluation boring over 30 feet.	$488 per boring
This includes direct push equipment, operator and project manager (for oversight), equipment decontamination, backfilling of void, and soil sample collection. Assumptions A 30-foot shoring evaluation boring is installed using direct push equipment. Continuous soil samples are collected. 8 shoring evaluation borings can be installed in an 8-hour day. Calculations $134 hourly rate for project manager (for oversight) multiplied by 8 hours = $1,072 per day $1,072 divided by 8 shoring evaluation borings = **$134 per soil shoring evaluation boring** $1,646 for direct push equipment divided by 8 shoring evaluation borings = **$205.75 per shoring evaluation boring** $434 per day for a two-man drill crew divided by 8 = **$54.25 per shoring evaluation boring** $60 hour rate for laborer multiplied by 8 hours = $480 $480 divided by 8 borings = **$60 per shoring evaluation boring** $134 hourly rate for project manager (for scheduling) multiplied by 2 hours = $268 per day $268 per day divided by 8 shoring evaluation borings = **$33.50 per shoring evaluation boring** **Total of bold items above = $487.50 per shoring evaluation boring. $487.50 is adjusted to $488 per shoring evaluation boring.** An additional $17 per foot will be added to each shoring evaluation boring over 30 feet.	
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 per directive
This includes materials and equipment needed for surveying. Calculations $134 hourly rate for project manager (for scheduling) multiplied by 1-hour = **$134 per directive** $194 for two-man survey crew multiplied by 2 hours = **$388 per directive** **Total of bold items above = $522 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 per drum
This formulated task rate is based on invoices received for the transportation of a 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 per drum
This formulated task rate is based on invoices received for the disposal of a 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 per 100-foot radius of the excavation zone
Assumption An Initial Site Survey can be completed in one 8-hour day. Calculations $97 hourly rate for field technician multiplied by 2 = $194 $194 multiplied by 8 hours = **$1,552 per survey** $134 hourly rate for project manager (for scheduling) multiplied by 2.75 hours = **$368.50 per survey** **Total of the bold items above = $1,920.50 per survey. $1,920.50 is adjusted to $1,921 per survey.**	
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 each
Assumption An Additional Site Survey can be completed in 4 hours. Calculations $97 hourly rate for field technician multiplied by 2 = $194 $194 multiplied by 4 hours = **$776 per survey** $134 hourly rate for project manager (for scheduling) multiplied by 1.25 hours = **$167.50 per survey** **Total of the bold items above = $943.50 per survey. $943.50 is adjusted to $944 per survey.**	
Private Utility Locate (as directed by the cabinet)	Actual cost + 15% *(not-to-exceed $2,540)*
This formulated task rate is based on invoices received for private utility locates.	

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 each
$134 hourly rate for project manager multiplied by 3 hours = **$402** $67 hourly rate for administrative assistant multiplied by 1.5 hours = **$100.50** **$41.83** for materials, postage, etc. **Total of bold items above = $544.33 per initial encroachment permit. $544.33 is adjusted to $545 per initial encroachment permit.**	
Encroachment Permit Renewal (must be approved/directed in writing by the cabinet prior to renewal)	$237 each
$144.02 for bond renewal cost $67 hourly rate for administrative assistant multiplied by 0.75 hours = **$50.25** **$41.83** for postage **Total of bold items above = $236.10 per encroachment permit renewal. $236.10 is adjusted to $237 per encroachment permit renewal.**	
Encroachment Permit Renewal without Insurance Bond (must be approved/directed in writing by the cabinet prior to renewal)	$67 each
$67 hourly rate for administrative assistant multiplied by 1-hour to contact DOT for renewal = $67 per encroachment permit renewal without insurance bond.	
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 each
$134 hourly rate for project manager multiplied by 3 hours = **$402** $67 hourly rate for administrative assistant multiplied by 1.5 hours = **$100.50** **$41.83** for materials, postage, etc. **Total of bold items above = $544.33 per off-site property access agreement. $544.33 is adjusted to $545 per off-site property access agreement.**	

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 per test
12-hr pump test	$3,830 per test
24-hr pump test	$7,660 per test
This includes all field personnel and equipment to set up and perform a pump test to determine aquifer parameters. Equipment includes a submersible pump, two interface probes, a data logger with pressure transducers, a generator, a portable tank, decontamination expendables, etc. Calculations $134 hourly rate for project manager (for oversight) multiplied by 8 hours = **$1,072** **$240.03** per day for portable tank **$1,241.30** per day for field equipment listed above per day **Total of bold items above = $2,553.33** $2,553.33 divided by 8 hours = $319.17 per hour **8 hours multiplied by $319.17 = $2,553.33 per 8-hour event. $2,553.33 is adjusted to $2,554 per test.** **12 hours multiplied by $319.17 = $3,829.99 per 12-hour event. $3,829.99 is adjusted to $3,830 per test.** **24 hours multiplied by $319.17 = $7,659.98 per 24-hour event. $7,659.98 is adjusted to $7,660 per test.**	
Slug Test: includes all field personnel and equipment as directed by the cabinet.	$686 per well
This formulated task rate is based on information received from eligible companies.	
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 *(initial 8-hour day)*
$134 hourly rate for project manager multiplied by 8 hours = **$1,072** $182 hourly rate for vacuum truck multiplied by 8 hours = $1,456 x 2 = **$2,912** $41 daily rate for anemometer = $41 x 2 = **$82** $58 daily rate for oil water interface probe = $58 x 2 = **$116** $41 daily rate for mini-submersible pump = $41 x 2 = **$82** $150 daily rate for sonde and display system = $150 x 2 = **$300** $146 daily rate for PID photoionization detector = $146 x 2 = **$292** Cost Quotes Submitted: $5.75 for pressure indicator = $5.75 x 2 = **$11.50** $69 for water level indicator = $69 x 2 = **$138** **Total of the bold items above = $5,005.50 for initial event; $5,005.50 is adjusted to $5,006 for initial event.**	

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 per day

$134 hourly rate for project manager multiplied by 8 hours = **$1,072**
$182 hourly rate for vacuum truck multiplied by 8 hours = **$1,456**
$41 daily rate for anemometer = **$41**
$58 daily rate for oil water interface probe = **$58**
$41 daily rate for mini-submersible pump = **$41**
$150 daily rate for sonde and display system = **$150**
$146 daily rate for PID photoionization detector = **$146**

Cost Quotes Submitted:
$5.75 for pressure indicator = **$5.75**
$69 for water level indicator = **$69**

Total of the bold items above = $3,038.75 for continuous events; $3,038.75 is adjusted to $3,039 for continuous events.

3.12 Operation and Maintenance

The following table lists formulated task rates associated with vapor intrusion 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.	
Maintenance	Actual Cost + 15%
Utilities	Actual Cost
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%

3.12.1 Soil Gas Sampling

Soil Gas Sampling	$1,427 per pin

Assumptions
The cost associated for two hours per vapor pin for vapor intrusion.

Calculations
$97 hourly rate for field technician multiplied by 2 hours = **$194 per pin**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = **$268 per pin**
$1,646 per day Direct Push Unit divided by 4 pins per day = **$411.50 per pin**
Tubing (5 foot) per pin = **$10 per pin**

Cost quotes submitted:
Tips per pin rate: **$15**
Screens, implants per pin rate = **$60 for 5 ft per pin**
Manhole per pin rate = **$50**
Backfill material, sand and bentonite per pin rate = **$6.90**
Surface Completion per pin rate = **$411.48**

Total of the bold items above = $1,426.88 per vapor pin. $1,426.88 is adjusted to $1,427 per vapor pin.

Sub Slab Soil Gas Sampling	$768 per pin

Assumptions
The cost associated for two hours per vapor pin for vapor intrusion.

Calculations
$97 hourly rate for field technician multiplied by 2 hours = **$194 per pin**
$134 hourly rate for project manager (for scheduling) multiplied by 2 hours = **$268 per pin**
Tubing (5 foot) per pin = **$10 per pin**
$100 per day rate Hammer Drill divided by 4 pins per day = **$25 per pin**

Cost quotes submitted:
Vapor Pin = **$139**
Bit Rental = **$132**

Total of the bold items above = $768 per vapor 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 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 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 per request
$97 hourly rate for field technician multiplied by 4 hours = **$388** **$163** hourly rate for P.E./P.G. to complete the class guide **The total of the bold items above = $551 per request for site visit to reevaluate classification.**	
Site visit to complete a UST Classification Guide, DWM 4261, as part of a Site Check (as directed by the cabinet).	$551 per request
$97 hourly rate for field technician multiplied by 4 hours = **$388** **$163** hourly rate for P.E./P.G. to complete the class guide **The total of the bold items above = $551 per request for site visit to complete class guide.**	
Tank & Line Tightness Testing in conjunction with site check, site investigation, or corrective action activities for a facility as directed by the cabinet.	$813 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.

These formulated task rates are based on invoices received.	
Laboratory Parameters	
Active Persulfate	$15 per sample
Biological Oxygen Demand (BOD)	$55 per sample
BTEX (Method 8021): MTBE reporting included if directed by the cabinet for domestic-use sources	$110 per sample
BTEX (Method 8260): MTBE reporting included if directed by the cabinet for domestic-use sources	$121 per sample
BTEX (Method 8260) 24-hour turn around: MTBE reporting included if directed by the cabinet for domestic-use sources	$194 per sample
BTEX, Field Blank (water only)	$121 per sample
BTEX, Trip Blank (water only)	$110 per sample
Calcium (Ca)	$69 per sample
Carbon Dioxide (CO_2)	$63 per sample
Carbonate Alkalinity	$28 per sample
Chemical Oxygen Demand (COD)	$49 per sample
Dissolved Calcium	$68 per sample
Dissolved Iron	$24 per sample
Dissolved Magnesium	$32 per sample
Ferrous Iron	$28 per sample
Grain Size Analysis	$262 per sample
Hardness	$22 per sample
Heterotrophic Plate Count	$88 per sample
Ignitability	$76 per sample
Inorganic Nitrogen (N)	$83 per sample
Intrinsic Soil Permeability (includes all costs for collection and analysis)	$686 per sample
Iron (Fe)	$55 per sample
Iron, Total	$32 per sample
Lead, Total (soil)	$69 per sample
Lead, Total (soil) 24-hour turn around	$140 per sample
Lead, Dissolved (groundwater)	$69 per sample
Lead Dissolved (groundwater) 24-hour turn around	$140 per sample
Low Level Volatile Fatty Acids	$183 per sample
PAH (Method 8270)	$291 per sample
PAH (Method 8270) 24-hour turn around	$349 per sample
Manganese (Mn)	$32 per sample
Methane	$81 per sample
Microbe Enumeration Studies	$144 per sample
Nitrate (NO_3)	$46 per sample
Nitrite (NO_2)	$46 per sample
Paint Filter Test	$66 per sample
pH	$55 per sample

Phosphate (PO_3)	$43 per sample
Soil Moisture Content	$21 per sample
Soil Oxidation Reduction Potential (Redox)	$55 per sample
Soluble Ferrous Iron	$54 per sample
Sulfate (SO_4)	$39 per sample
Sulfide (S^{2-})	$42 per sample
Total Dissolved Solids (TDS)	$35 per sample
Total Organic Carbon (TOC)	$103 per sample
Total Petroleum Hydrocarbon (TPH-GRO and TPH-DRO)	$103 per sample
Total Organic Nitrogen (TON)	$69 per sample
Waste Characterization	Actual cost plus 15%
Vapor Intrusion Assessment Laboratory Parameters	
Individual Summa Canister Certification	$138 each
Method TO-15	$393 per sample
Method 8260	$172 per sample
Oxygen/Carbon Dioxide (O_2/CO_2)	$138 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			$1,534
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	2.00	$326.00
Toxicologist	$186	0.00	$0.00
Project Manager (Geologist, Engineer, Scientist)	$134	7.00	$938.00
Drafting [figure support]	$89	1.50	$133.50
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,533.50**

Site Check Reporting			
Site Check Report (with DWM 4268)			$1,516
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	2.00	$326.00
Toxicologist	$186	0.00	$0.00
Project Manager (Geologist, Engineer, Scientist)	$134	6.00	$804.00
Drafting [figure support]	$89	3.00	$267.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	0.75	$51.75
TOTAL			**$1,515.75**

Closure Reporting			
Optional Soil Removal at the time of Permanent Closure Report (submitted with the Closure Assessment Report)			$690
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (Geologist, Engineer, Scientist)	$134	2.50	$335.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$689.50**

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.			$3,647
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	4.00	$652.00
Toxicologist	$186	0.00	$0.00
Project Manager (Geologist, Engineer, Scientist)	$134	16.00	$2,144.00
Drafting [figure support]	$89	5.00	$445.00
Admin. /Clerical [copy, filing, etc.…]	$67	4.00	$268.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$3,647.00**
Initial Site Survey Reporting – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.			$1,277
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	3.00	$402.00
Drafting [figure support]	$89	8.00	$712.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.00	$0.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$1,277.00**
Additional Site Survey Reporting – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.			$787
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	2.00	$268.00
Drafting [figure support]	$89	4.00	$356.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.00	$0.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$787.00**

Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.			$1,233
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	4.00	$536.00
Drafting [figure support]	$89	6.00	$534.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.00	$0.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$1,233.00**

Vapor Assessment – Supplemental Site Investigation Reporting: this reporting cost will be added to the base report cost when directed by the cabinet.			$1,040
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	2.00	$326.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	4.00	$536.00
Drafting [figure support]	$89	2.00	$178.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.00	$0.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$1,040.00**

Corrective Action Reporting			
Over-Excavation Scope of Work Proposal (with 4263)			$1,056
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	6.00	$804.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.00	$0.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$1,056.00**
Over-Excavation Report < 500 cubic yards (with DWM 4267)			$690
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	2.50	$335.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$689.50**
Over-Excavation Report > 500 cubic yards (with DWM 4267)			$1,772
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	8.50	$1,139.00
Drafting [figure support]	$89	3.00	$267.00
Admin. /Clerical [copy, filing, etc.…]	$67	2.00	$134.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,772.00**

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)			$1,962
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	6.00	$978.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	5.00	$670.00
Drafting [figure support]	$89	2.00	$178.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,962.00**

Injection, Geophysics, or High Resolution Site Characterization (HRSC) Report or another report as directed by the cabinet (with DWM 4263)			$2,052
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	6.00	$978.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	6.00	$804.00
Drafting [figure support]	$89	1.50	$133.50
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$2,051.50**

Scope of Work Proposal *for* a Feasibility Study or Pilot Study (with DWM 4263)			$1,962
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	6.00	$978.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	5.00	$670.00
Drafting [figure support]	$89	2.00	$178.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,962.00**

Feasibility Study Report (with DWM 4263)			$2,199
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	8.00	$1,304.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	5.00	$670.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$2,199.00**

Pilot Study Report (with DWM 4263)			$4,173
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	16.00	$2,608.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	9.00	$1,206.00
Drafting [figure support]	$89	2.50	$222.50
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$4,172.50**

As-Built or Corrective Action Implementation Report (with DWM 4263)			$1,399
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	2.00	$326.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	5.00	$670.00
Drafting [figure support]	$89	3.00	$267.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,399.00**

Groundwater Monitoring Report (with DWM 4264)			$1,553
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	2.00	$326.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	6.00	$804.00
Drafting [figure support]	$89	4.00	$356.00
Admin. /Clerical [copy, filing, etc.…]	$67	1.00	$67.00
Misc. [materials etc.…]	$69	0.00	$0.00
TOTAL			**$1,553.00**

Corrective Action Plan – Soil Only (with DWM 4263)			$4,576
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	16.00	$2,608.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	9.00	$1,206.00
Drafting [figure support]	$89	4.00	$356.00
Admin. /Clerical [copy, filing, etc.…]	$67	4.00	$268.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$4,576.00**

Corrective Action Plan – Groundwater Only or Groundwater and Soil (with DWM 4263)			$7,634
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	26.00	$4,238.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	17.00	$2,278.00
Drafting [figure support]	$89	8.00	$712.00
Admin. /Clerical [copy, filing, etc.…]	$67	4.00	$268.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$7,634.00**

Amended Corrective Action Plan – Soil Only (with DWM 4263)			$2,424
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	8.00	$1,304.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	5.00	$670.00
Drafting [figure support]	$89	2.00	$178.00
Admin. /Clerical [copy, filing, etc.…]	$67	2.00	$134.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$2,424.00**

Amended Corrective Action Plan – Groundwater Only or Groundwater and Soil (with DWM 4263)			$4,309
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	16.00	$2,608.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	9.00	$1,206.00
Drafting [figure support]	$89	2.50	$222.50
Admin. /Clerical [copy, filing, etc.…]	$67	2.00	$134.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$4,308.50**

Risk Assessment Scope of Work Proposal (with DWM 4263)			$3,971
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	9.00	$1,467.00
Toxicologist	$186	12.00	$2,232.00
Project Manager (geologist, engineer, scientist)	$134	0.00	$0.00
Drafting [figure support]	$89	0.00	$0.00
Admin. /Clerical [copy, filing, etc.…]	$67	2.00	$134.00
Misc. [materials etc.…]	$69	2.00	$138.00
TOTAL			**$3,971.00**

Risk Assessment Report (Tier II or Tier III) (with DWM 4263)			$31,460
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	44.00	$7,172.00
Toxicologist	$186	120.00	$22,320.00
Project Manager (geologist, engineer, scientist)	$134	0.00	$0.00
Drafting [figure support]	$89	16.00	$1,424.00
Admin. /Clerical [copy, filing, etc.…]	$67	4.00	$268.00
Misc. [materials etc.…]	$69	4.00	$276.00
TOTAL			**$31,460.00**

Miscellaneous Reporting			
Miscellaneous Report			$507
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	0.50	$81.50
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	2.00	$268.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	0.50	$34.50
TOTAL			**$506.50**

Free Product Recovery Report			$690
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	2.50	$335.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$689.50**

Minor Field Work Report			$1,005
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.50	$244.50
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	4.50	$603.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	0.50	$34.50
TOTAL			**$1,004.50**

Mobile Dual-Phase Extraction Report (with DWM 4265)			$1,494
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.00	$163.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	8.50	$1,139.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,493.50**

Shoring Evaluation Report			$1,572
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	6.00	$978.00
Toxicologist	$186	0.00	$0.00
Project Manager (geologist, engineer, scientist)	$134	3.00	$402.00
Drafting [figure support]	$89	1.00	$89.00
Admin. /Clerical [copy, filing, etc.…]	$67	0.50	$33.50
Misc. [materials etc.…]	$69	1.00	$69.00
TOTAL			**$1,571.50**

Completion of UST Vapor Intrusion Building Assessment Checklist, DWM 4271			$245.00 per building
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.50	$244.50
TOTAL			**$244.50**

Completion of UST Vapor Intrusion Assessment Checklist, DWM 4270			$245.00 per sampling event
Personnel	**Unit Rate** *($)*	**Total Units** *(hours)*	**Reimbursement** *($)*
Professional Geologist (Alt. PE)	$163	1.50	$244.50
TOTAL			**$244.50**

Completion of Conceptual Site Model Report	Actual Cost plus 15%
This cost will be reimbursed based on actual invoice submitted for costs incurred.	

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 needed to perform surface material replacement. Rebar and curbing costs are included in the formulated task rates.

Asphalt replacement	$1.85 per sq. ft. per inch thick *(minimum $2,960)*
This cost is based on invoices received for surface material replacement of asphalt.	
Concrete replacement	$2.35 per sq. ft. per inch thick *(minimum $2,960)*
This cost is based on invoices received for surface material replacement of concrete.	
Reseeding	
Reseeding < 1-acre	$0.30 per sq. ft.
Reseeding ≥ 1-acre	$0.15 per sq. ft.
These costs are based on invoices received for surface material replacement.	

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

These formulated task rates are based on average rental rates.	
Air compressor (< 190 CFM)	$165 per day
Air compressor (> 190 CFM)	$282 per day
Anemometer	$41 per day
Asphalt (bag)	$31 per bag
Backhoe (trailer and accessories)	$83 per hour
Bentonite chips (bag)	$21 per bag
Concrete saw (hand or push)	$126 per day
Conductivity meter	$28 per day
Concrete corer	$242 per day
Dingo Stand on loader	$49 per hour
Direct-push unit (includes operator)	$1,646 per day
Direct-push unit (excluding operator)	$1,307 per day
Drum (55 gallon)	$125 each
Dissolved oxygen (DO) meter	$60 per day
Dump Truck	$49 per hour
Electronic water level indicator	$28 per day
Electronic water level recorder/transducer (two (2) well capability)	$69 per day
Electronic water level recorder/transducer (four (4) well capability)	$138 per day
Excavator (25,000 – 34,000 lbs.)	$908 per day
Excavator (35,000 – 44,000 lbs.)	$1,089 per day
Excavator (45,000 – 50,000 lbs.)	$1,271 per day
Fencing/chain link (100 feet with 10 posts)	$242 per month
Fencing/safety orange plastic (100 feet x 6 feet)	$212 each
Flame ionization detector (FID) / Organic vapor analyzer (OVA)	$200 per day
Flow regulator (air samples only)	$55 per day
Frac Tank (~21,000 gallon) including poly tanks or holding tanks	$91 per day
Generator	$105 per day
Grout pump	$103 per day
Hammer Drill	$100 per day
Injection trailer (includes drill rig, operator, and mounted pumping system)	$3,388 per day
Jackhammer / Rock drill (air with bit and hose)	$107 per day
Jackhammer / Rock drill (electric with bit)	$148 per day
Lower explosive limit (LEL) meter	$49 per day
Loader (skid)	$51 per hour
Multi-meter (multiple measurement device)	$53 per day
Oil Water Interface Probe	$58 per day
pH Meter	$28 per day
Photoionization detector (PID) / Hnu meter	$146 per day
Post hole auger for Bobcat	$78 per hour

Power auger (hand held)	$85 per day
Portable Toilet	Invoice + 15%
Pump (mini submersible)	$41 per day
Pump 2-inch submersible pump (electric)	$62 per day
Pump 2-inch trash pump	$90 per day
Pump 3-inch trash pump	$117 per day
Rebar #3 (10-foot section)	$8 each
Self-contained steam cleaning unit	$172 per day
Steam cleaner	$140 per day
Survey equipment	$62 per day
Trencher (walk behind)	$62 per hour
Track hoe (trailer and accessories)	$138 per hour
Traffic control (one-time startup cost if necessary above traffic control in formulated task rates)	$91 each
Traffic control, cones	$0.30 per day
Traffic control, safety barricade (50-foot roll)	$31 per day
Traffic control, signage	$3 per day
Tubing (5 ft)	$10 per 5 ft
Vacuum Truck	$182 per hour
Vapor Pin	$139 per pin
Velocity meter	$62 per day
Water truck (500 gallon), usage must be justified	$206 per day
Water truck (800 gallon capacity or greater), usage must be justified	$241 per day
YSI Sonde & Display System	$150 per day
6L Summa canister rental (weekly)	$69 each
1L Summa canister rental (weekly)	$69 each
Flow regulator rental (weekly)	$69 each
Copies	$0.14 per page
Faxes	$1.71 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
Professional Geologist (registered in KY)	
Project Manager (geologist, engineer, scientist)	$134
Field Technician	$97
Toxicologist	$186
Administrative Assistant	$67
Draftsperson/CAD	$89
Laborer	$60
Equipment Operator	$67
Electrical Contractor (license required)	$89
Apprentice Plumber	$67
Journeyman Plumber	$75
Master Plumber (license required)	$82
Flagger	$53

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 per hour
Partner or principal in firm	$260 per hour
Associate in firm	$208 per hour
Paralegal	$89 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