MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY
UNDERGROUND STORAGE TANK BRANCH

STANDARDIZATION OF HOURS FOR ASSESSMENT AND REMEDIATION TASKS FOR PROPOSAL SUBMITTALS BASED ON TIME & MATERIALS NOT TO EXCEED

1/6/2009

Introduction

This document provides the personnel and the maximum allowable hours considered for proposals for projects, which are approved for reimbursement under the Mississippi Groundwater Protection Trust Fund for assessment and remediation tasks. If additional or alternative personnel are needed, or if the site conditions warrant additional hours, contact the Underground Storage Tank (UST) project manager to discuss the recommended changes prior to the submittal of the proposal. If an agreement is not reached, the standards in this document will apply. If an agreement is reached, then a written justifiable explanation for the change in personnel and/or increase in hours shall be submitted with the proposal.

However, if the maximum hours are not needed, then the Environmental Response Action Contractor (ERAC) should submit the proposal to reflect these hours. If the ERAC recommends maximum hours in situations that do not require as many hours, then the project manager may recommend reductions in the proposal below the maximum allowable hours given in this document.

The activities included in this document at this time are as follows:

- Groundwater Sampling
- Preliminary Subsurface Investigation (PSI)
- Additional Subsurface Investigation (ASI)
- Discharge Permits
- Dual Phase Remediation Systems
- Vacuuming
- Bailing / Skimmers / Socks
- Temporary Remediation Systems

The ERAC shall include in the proposal any laboratory analysis required as discussed with the UST project manager. All trip blanks, equipment blanks, and duplicate samples shall be included in the proposal.

Activities Not Included

The UST Branch has established a scope of work (SOW) for the following assessment, groundwater sampling, and monitoring well plugging activities. Standardized hours and maximum allowable cost have already been calculated for these SOWs. Therefore, these specific activities are not included in this document, because the ERAC is not required to submit a scope of work/cost estimate (SOW/CE) for **MDEQ SOW**s.

- Preliminary Subsurface Investigation (PSI) MDEQ SOW
- Limited Subsurface Investigation (LSI) MDEQ SOW
- Groundwater Sampling (GWS) MDEQ SOW
- Plugging monitoring wells (Plug) MDEQ SOW

This document may be revised as additional standards are established and as the UST Branch deems necessary.

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GROUNDWATER SAMPLING

Travel

Reimburse actual up to a maximum of 6 hours for a round trip for one person only.

Project Management

Project Engineer/Geologist = 2 hours

On Site Activities

Time for an Environmental Technician:

Collecting groundwater samples from wells (35 ft or less) & recording groundwater elevations:

6 inch well	4 inch well	2 inch well	1 inch well
1.25 hour / well	1.0 hour / well	0.75 hour / well	0.5 hour / well

The sampling activities include: preparation time at the office, calculating well volumes, removing well covers, measuring for free product, measuring water depth and well depth, purging wells by bailer or pump, collecting groundwater samples, pouring groundwater into labeled containers (with preservatives, if necessary), collecting QA/QC samples, completing monitoring well sampling record form, completing chain of custody form, disposing of contaminated groundwater, putting well covers back on, and any office time required for getting or putting up sampling equipment.

0.17 hour / well if only recording groundwater elevations

Equipment

Oil / water interface probe
Bailers
Sampling Supplies (gloves, alconox, jars, string, rope, pumps, etc.)

For wells 35 feet or less, reimbursement for groundwater sampling will be based on hand purging. The ERAC may use a pump to purge the wells, but the tank owner may not request reimbursement for the pump. (For deeper wells, discuss with the MDEQ/UST project manager before submitting proposal.)

Report Preparation

Senior Engineer/Geologist	=	2 hours
Staff Engineer/Geologist	=	6 hours
CADD Operator	=	2 hours
Clerical	=	2 hours

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PRELIMINARY SUBSURFACE INVESTIGATION (PSI) WHICH REQUIRES A SOW/CE

Travel

Reimburse actual up to a maximum of 6 hours for a round trip for one person only, except for Surveying and Slug Tests activities where travel will be reimbursed for two people.

Project Management

Project Engineer/Geologist = 2 hours

Initial Assessment Activities

Staff Engineer/Geologist	= 4 hours	Site history (interview owner & review files)
	= 1 hour	Utility survey
	= 2 hours	Water well survey & field verify wells
	= 1 hour	Vicinity survey

Groundwater Sampling

Time for an Environmental Technician:

Collecting groundwater samples from wells (35 ft or less) & recording groundwater elevations:

6 inch well	4 inch well	2 inch well	1 inch well
1.25 hour / well	1.0 hour / well	0.75 hour / well	0.5 hour / well

(Refer to page 1 for a list of activities included in this time per well)
0.17 hour / well if only recording groundwater elevations.

ERAC Time for Drilling

Time for Staff Engineer / Geologist:

Task	Conventional Drilling			Direct-Push
	6 inch well	4 inch well	2 inch well	1 inch well
Boring drilled & grouted	0.15 hour / foot	0.1 hour / foot	0.075 hour / foot	0.05 hour / foot
Boring drilled & monitoring well installed	0.25 hour / foot	0.2 hour / foot	0.15 hour / foot	0.10 hour / foot

Surveying

1- Staff Engineer/Geologist **AND**
1 - Env. Technician = each at 15 minutes / well

Slug Tests

1- Staff Engineer/Geologist **AND**
1 - Env. Technician = each at 1 hour / well

Equipment

Refer to page 1 for groundwater sampling equipment.
Soil sampling supplies
PID/FID

Offsite Access (if required)

Travel time	=	Reimburse actual up to a maximum of 6 hours for a round trip
Staff Engineer/Geologist	=	6 hours
Clerical	=	1 hour

Report Preparation

Senior Engineer/Geologist	=	4 hours (for 4 or more wells)
Staff Engineer/Geologist	=	40 hours (for 4 or more wells) -includes preparation of boring logs & monitoring well schematics
CADD Operator	=	8 hours for initial map & 1 hour / map for additional maps
Clerical	=	9 hours

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ADDITIONAL SUBSURFACE INVESTIGATION (ASI)

Travel

Reimburse actual up to a maximum of 6 hours for a round trip for one person only, except for Surveying and Slug Tests activities where travel will be reimbursed for two people.

Project Management

Project Engineer/Geologist = 2 hours

Groundwater Sampling

Time for an Environmental Technician:

Collecting groundwater samples from wells (35 ft or less) & recording groundwater elevations:

6 inch well	4 inch well	2 inch well	1 inch well
1.25 hour / well	1.0 hour / well	0.75 hour / well	0.5 hour / well

(Refer to page 1 for a list of activities included in this time per well)
0.17 hour / well if only recording groundwater elevations.

ERAC Time for Drilling

Time for Staff Engineer / Geologist:

Task	Conventional Drilling			Direct-Push
	6 inch well	4 inch well	2 inch well	1 inch well
Boring drilled & grouted	0.15 hour / foot	0.1 hour / foot	0.075 hour / foot	0.05 hour / foot
Boring drilled & monitoring well installed	0.25 hour / foot	0.2 hour / foot	0.15 hour / foot	0.10 hour / foot

Surveying

1- Staff Engineer/Geologist **AND**
1 - Env. Technician = each at 15 minutes / well

Slug Tests

1- Staff Engineer/Geologist **AND**
1 - Env. Technician = each at 1 hour / well

Equipment

Refer to page 1 for groundwater sampling equipment.
Soil sampling supplies
PID/FID

Offsite Access

Travel time = Reimburse actual up to a maximum of 6 hours for a round trip
Staff Engineer/Geologist = 6 hours
Clerical = 1 hour

Report Preparation for other Phases

Senior Engineer/Geologist = 4 hours (for 4 or more wells)
Staff Engineer/Geologist = 24 hours (for 4 or more wells)
-includes preparation of boring logs & monitoring well schematics
CADD Operator = 1 hour / map
Clerical = 6 hours

DISCHARGE PERMITS

Collect Samples – if not done in assessment phase

Travel = Reimburse actual up to a maximum of 6 hours for a round trip

Collect samples = see page 1 for "Groundwater Sampling"

To Get Authorization from Offsite Sources

Travel time	=	Reimburse actual up to a maximum of 6 hours for a round trip
Staff Engineer/Geologist	=	6 hours
Clerical	=	1 hour

Time to Prepare the UST Groundwater Remediation General Permit

A copy of the UST Notice of Intent shall be submitted to the MDEQ – EPD Division and the UST project manager in order for the invoice to be technically approved

Project Engineer/Geologist	=	6 hours
Clerical	=	2 hours

Time to Prepare Site Specific Permit – POTW or NPDES

A copy of permit application shall be submitted to the MDEQ – EPD Division and the UST project manager in order for the invoice to be technically approved

Project Engineer/Geologist	=	7 hours
CADD Operator	=	2 hours
Clerical	=	2 hours

DUAL PHASE REMEDIATION SYSTEMS

Remediation System Startup

12 hours for Staff Engineer/Geologist

Trenching

There are no set hours per task for the trenching activities at this time. However, the Staff Engineer/Geologist must measure trenching before and after completion. If the Staff Engineer/Geologist is off by 15 % or more, then the tank owner may not be fully reimbursed for the ERAC's oversight of trenching activities.

Groundwater Sampling

Time for an Environmental Technician:

Collecting groundwater samples from wells (35 ft or less) & recording groundwater elevations:

6 inch well	4 inch well	2 inch well	1 inch well
1.25 hour / well	1.0 hour / well	0.75 hour / well	0.5 hour / well

(Refer to page 1 for a list of activities included in this time per well)
0.17 hour / well if only recording groundwater elevations.

Monthly Operation and Maintenance

First Year and Second Year of Operation:

Travel = Reimburse actual up to a maximum of 6 hours for a round trip
Routine site visits = total of 3 visits per month at a maximum of 2.5 hours per visit

- 2 visits for Environmental Technician
- 1 visit for Staff Engineer/Geologist

If the subsequent years require more than 3 visits per month and/or 2.5 hours per visit, the ERAC shall prepare a table listing all O&M visits with the associated dates and times for each site visit.

Triannual System Cleaning & Maintenance

Two Environmental Technicians at 8 hours each:

For the first year, system cleaning shall be reimbursable once every triannual period. For additional years, the number of cleaning days per year will be decided on a site by site basis.

Reimbursement of the cleaning will be based on the submittal of the completed maintenance forms in the triannual report.

Equipment

Refer to page 1 for groundwater sampling equipment.
PID/FID

Monthly Office Time

Project Engineer/Geologist	=	2 hours
Project Engineer/Geologist	=	1 hour for Discharge Monitoring Report (DMR)
Clerical	=	1 hour for DMR

Startup Report or Triannual Report Preparation

Senior Engineer/Geologist	=	4 hours
Staff Engineer/Geologist	=	16 hours (includes: writing report, tables)
CADD Operator	=	5 hours
Clerical	=	6 hours

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VACUUMING

ERAC Initial Activities

Staff Engineer/Geologist = 0.50 hours/event (for coordination of all vacuuming events)

The ERAC may have a representative (Environmental Technician) at the first site visit only.

Travel shall be reimbursed actual up to a maximum of 6 hours for a round trip

Setup time before vacuuming, setup time between all evacuation of wells (if there is more than one well), and demobilization
= 3 hours total for Environmental Technician, or 2 hours if only one well

Vacuuming time based on the amount in the proposal,
Not to exceed 8 hours for Environmental Technician

Vacuum Truck Service Activities

Vacuum Truck Technician = 1 hour per event (for checking for free product before and after vacuuming activities)

Equipment

1 – Oil/water interface probe to be proposed by the Vacuum Truck company

Vacuum truck = may allow up to one hour in addition to proposed vacuuming hours for the vacuum truck. This additional time will cover the moving of the truck between wells.

Minimum Vacuuming time for site = 4 hours

Vacuum truck rate includes the Vacuum Truck Technician's time for actual vacuuming.

Report Preparation

For the Final Report,

Senior Engineer /Geologist	= 2 hours
Staff Engineer/Geologist	= 2 hours/event with a maximum of 16 hours
CADD Operator	= 2 hours
Clerical	= 6 hours

The number of events will determine total report time for the Staff Engineer/Geologist.

BAILING / SKIMMERS / SOCKS

Travel

Reimburse actual up to a maximum of 6 hours for a round trip for one person only.

On Site Activities

Time per trip for an Environmental Technician:

0.25 hour / well to measure depth to free product/water, bail, install sock/skimmer, remove sock/skimmer, and replace sock/skimmer as needed.

0.17 hour / well if only recording groundwater elevations

Equipment (as required)

Absorbent Socks
Oil / water interface probe
Bailers
Skimmers
55 gallon drum for storage of used socks or free product until disposal

Disposal of Socks/Product

Disposal of the used socks

Vacuum truck to recover product

Report Preparation

Senior Engineer/Geologist	=	2 hours
Staff Engineer/Geologist	=	6 hours
CADD Operator	=	1 hours
Clerical	=	3 hours

TEMPORARY REMEDIATION SYSTEMS

Remediation System Startup

8 hours for Staff Engineer/Geologist

Trenching

There are no set hours per task for the trenching activities at this time. However, the Staff Engineer/Geologist must measure trenching before and after completion. If the Staff Engineer/Geologist is off by 15 % or more, then the tank owner may not be fully reimbursed for the ERAC's oversight of trenching activities.

Monthly Operation and Maintenance

Time for Environmental Technician:

Travel = Reimburse actual up to a maximum of 6 hours for a round trip
Routine site visits = Total of 2 visits per month at a maximum of 2 hours per visit

Equipment

Oil / water interface probe
PID/FID

Monthly Office Time

Project Engineer/Geologist	= 1 hour
Project Engineer/Geologist	= 1 hour for Discharge Monitoring Report (DMR)
Clerical	= 1 hour for DMR

Finalization Activities

Staff Engineer/Geologist	= 6 hours

Startup Report

Senior Engineer/Geologist	= 0.5 hours
Staff Engineer/Geologist	= 4 hours
CADD	= 1 hour
Clerical	= 1 hour

Final Report

Senior Engineer/Geologist	= 1 hour
Staff Engineer/Geologist	= 6 hours
CADD	= 1 hour
Clerical	= 2 hours