GUIDELINES FOR THE SUBMISSION OF GROUNDWATER MONITORING REPORTS

(RIDEM; effective date July 1, 2015)

RI-DEM UST Section is presenting updated guidelines on the content of Groundwater Monitoring Reports (GMRs). Other reports, Site Investigations, Corrective Action and Remediation System Operation and Maintenance (active remediation) are not included. These guidelines are effort to standardize submittals and improve RI-DEM staff reviews. Reports not submitted in this fashion will not be accepted and returned for revision.

The guidelines focus mainly on three areas:

1. A site specific "GMR Cover Sheet"
2. Tables
3. Maps

Groundwater sampling reports are now to be submitted as both a hard copy and digitally.
A digital, pdf copy of each report, with the summary sheet, is to be submitted on a CD. The CD is to be labeled identifying the site, address, LS number and the specific report.

These guidelines are to be in effect upon receipt of this document. Please confer with your project DEM project manager on site specific issues and /or questions.

GMR Cover Sheet

A digital template version of the cover sheet is available on the UST Management Program's webpage and is to be filled out with the site specific information. The cover sheet is a digital document and must not be handwritten. It is intended to provide basic site information and is not a substitute for an actual groundwater monitoring report. It must be revised for each new groundwater monitoring report. The sheet is also to be printed out and accompany the groundwater monitoring report hard copy.

Tables

GMRs must include the three following groundwater data tables: Current Analysis Results, Historic Analysis Results and Groundwater Gauging. If groundwater parameters are collected (temperature, dissolved oxygen, etc) this data is to be presented in a separate table. Minimum font size for all tables is to 10 Times Roman or equivalent. GMRs must also include copies of the actual lab report with QA/QC and Chain of Custodies in the appendices.

Current: This table is to include groundwater analysis and elevation corrected gauging data specific to the latest sampling event in a table format. The table is also to include appropriate groundwater standards for comparison. Results are to be listed in ppb. Concentrations which exceed standards must be highlighted in bold. In the case of a non-detect, the detection limit is to be listed (example: <1). An example of such a table is listed below, with standards listed for GA sites. Minimum VOC compounds to be listed are Benzene, Toluene, Ethylbenzene, Total Xylenes, MTBE and Naphthalene. Additional columns are to be created if additional compound(s) are detected in analysis.

CURRENT GROUNDWATER RESULTS
Site name address
DATE:

Well ID	Corrected GW Elevation	Benzene 5 ppb	Toluene 1000 ppb	Ethylbenzene 700 ppb	Total Xylenes 10,000 ppb	MTBE 40ppb	Naphthalene 100 ppb
MW1							
MW2							
MW3							

Historic: This table is to include groundwater analysis results for a minimum of the past five years in a table format. Each well is to have an individual table. The table is also to include appropriate groundwater standards for comparison. Results are to be listed in ppb. Concentrations which exceed standards must be highlighted. In the case of a non-detect, the detection limit is to be listed in parentheses: nd (<1).

HISTORIC GROUNDWATER RESULTS
Site name address
WELL ID: MW1

Date	Corrected GW Elevation	Benzene 5 ppb	Toluene 1000 ppb	Ethylbenzene 700 ppb	Total Xylenes 10,000 ppb	MTBE 40 ppb	Naphthalene 100 ppb
1-1-14							
1-1-13							
1-1-12							

Groundwater Gauging: This table is to include Groundwater Gauging with data specific to the latest sampling event in a table format.

GROUNDWATER GAUGING
Site name address
DATE:

WELL ID	TOC ELEVATION (feet)	DEPTH TO WATER (feet)	DEPTH TO PRODUCT (feet)	PRODUCT THICKNESS (feet)	TOTAL DEPTH SCREENED INTERVAL	CORRECTED GW ELEVATION
MW-1	100.00	10.00	0	0	20 (10-20)	

CURRENT GROUNDWATER PARAMETERS
Site name address
DATE:

Well ID	TEMPERATURE	DO	pH	Specific Conductivity	Turbidity	ORP	(…)
MW1							
MW2							
MW3							

Maps

A Site Plan is critical to presenting current data. It must be legible and of sufficient size to include all important data. Colors are encouraged. Minimum font size for items is to 10 Times Roman or equivalent. If the site information is too complex or the site area is too large to present legibly in one map; two maps are encouraged. Please confer with your site specific, DEM project manager on this issue.

Site plan must indicate all wells sampled and include:

- Maximum scale 1"=50'
- Each well's corrected groundwater elevation
- Groundwater contours using current data (not historic)
- Inferred direction of groundwater flow using current data (not historic)
- Current groundwater analytical results (ppb) in a text box for each well. Text boxes are to include Benzene, Toluene, Ethylbenzene, total Xylenes, MTBE and Naphthalene. Wells which exceed standards must be highlighted. Wells containing product are to be instead identified with the appropriate thickness.

MW-1 (99.01')	
Benzene	**10**
Toluene	nd (<1)
Ethyl benzene	nd (<1)
Xylenes	nd (<1)
MTBE	20
Naphthalene	nd (<1)

- Wells destroyed or inaccessible are to be identified.
- Property boundaries and roads
- Buildings and structures
- Roads
- Surface water bodies
- Drinking water wells: public and/or private
- Public sewer and water lines
- Onsite wastewater Treatment Systems, drywells and other waste disposal areas
- Extent of contaminated soil excavation(s)