

**REVISION LOG
GROUNDWATER MONITORING PLAN**

Revision No./Date	Type	Description	Section/Table/Figure/Appendix Revised	By (initials)	Revision No./ Approval Date
Rev 1: 1/15/07	Class 3 MO62	Hydrogeologic Evaluation incorporate significant changes into the GWM program.	Entire Plan	CH2M	
Rev 2: 10/31/08	Class 1 MO75	Remove parts of last condition in Section 5.1.1 regarding bladder pumps (no longer a requirement; bladder pumps were replaced during 10-08).	Section 5.1.1	VG	
Rev 3: 2/10/10	II.R. MO80	Update Table 5-2 for clarity. The table now reflects the recording interval on the FIFs (5 minute intervals) and provides flow rates that better match the sampling flow rates.	Table 5-2	GSI	
Rev 4: 3/29/11	II.R. MO82	Add Well Decommissioning statement and schedule to GWM Plan.	Section 3.5 Table 3-3	MS	
Rev 5: 5/24/11	II.R. MO85	Revise the Dioxane testing requirement to allow use of the regular EPA Method 8260 B rather than the SIM method.	Section 4.1, Tables 6-1 and 7-	VG	
Rev 6 9/19/2011	Class 2	Add well 5Q-1 to the list of wells where the detection monitoring criteria are equal to five times the values listed in Table X-4 of the Permit.	Section 4.1	GSI	
Rev 6 9/19/2011	Class 2	Remove the passive sampling and traditional (purge-dry) sampling methods from the Plan.	Remove Sections 5.1.2 and 5.1.4, and change	GSI	
Rev 6 9/19/2011	Class 2	Clarify that the plan includes the TSCA monitoring program, and not just the RCRA monitoring program.	Section 1.1	GSI	
Rev 6 9/19/2011	Class 2	Include references and a paragraph about the well integrity study and how it resulted in a plan to decommission wells at the facility.	Section 3.1, Section 8	GSI	
Rev 6 9/19/2011	Class 2	Update the list of piezometers to reflect the ongoing well decommissioning program.	Section 3.1, Figure 3-1, Table 3-2, and Appendix F	GSI	
Rev 6 9/19/2011	Class 2	Update the list of piezometers to remove four Level 9 wells (D-9, 2C-9, 2D-9, and 2E-9) that are not used for preparing groundwater elevation contour maps because of their long	Figure 3-1 and Table 3-2	GSI	
Rev 6 9/19/2011	Class 2	Update tables and appendices to reflect that all detection monitoring wells are outfitted with bladder	Tables 3-1 and 5-1, and	GSI	
Rev 6 9/19/2011	Class 2	Clarify that sounding will be conducted for monitoring wells.	Section 3.4	GSI	
Rev 6 9/19/2011	Class 2	Re-write Section 5.1 heavily to (1) reflect that the site-specific low-flow sampling method is the sole method in use at the facility for purging and sampling; (2) add text explaining and demonstrating the calculation procedure that resulted in the values listed in Table 5-1; and (3) provide more detailed instructions on when to stop purging at low-yielding wells. As part of the re-write, switch the numbering order sequence for Tables 5-1 and 5-2.	Section 5.1, Table 5-1, and Table 5-2	GSI	

**REVISION LOG
GROUNDWATER MONITORING PLAN**

Revision No./Date	Type	Description	Section/Table/Figure/Appendix Revised	By (initials)	Revision No./ Approval Date
Rev 6 9/19/2011	Class 2	Add drawdown criteria for 2-inch monitoring wells; and make small changes to the drawdown criteria for the case of 5-minute recording intervals at 4-inch wells (to address minor rounding issues with the original calculations).	Table 5-1 (formerly Table 5-2)	GSI	
Rev 6 9/19/2011	Class 2	Remove data specific to the formerly used traditional (purge-dry) sampling method.	Table 5-2 (formerly Table 5-1)	GSI	
Rev 6 9/19/2011	Class 2	Update the method of purge water disposal.	Section 5.2.4	GSI	
Rev 6 9/19/2011	Class 2	Update the recent name change of the analytical laboratory (from Severn Trent to Test America).	Section 6.1	GSI	
Rev 6 9/19/2011	Class 2	Update Table 6-1 to include 1,4-dioxane with Method 8260 SIM. (This constituent was inadvertently not listed, but has been a detection monitoring constituent since the time the Permit was renewed in 2006 [as listed in Tables X-3 and X-4 of the Permit].)	Table 6-1	GSI	
Rev 6 9/19/2011	Class 2	Add Page 2 of the Field Information Form (FIF), which was referenced in (but not attached to) prior versions of the Plan. Also, eliminate the "Minimum Volume of Groundwater ..." tables, which pertained to different pump types and sampling methods that are no longer in use. Also, revise the "Depth-To-Water Criteria" tables to (1) provide information needed for the Page 2 FIF form; (2) better display how the maximum depth-to-water (Max DTW) values are calculated; and (3) show how the amount of initial screen submergence (i.e., the static water level height above the well screen) affects the decision for stopping purging at wells if they are too low-yielding to be sampled on the same day as purging.	Appendix E	GSI	
Rev 6 9/19/2011	Class 2	Clarify which existing wells and piezometers are in background (upgradient) areas.	Appendix F	GSI	
Rev 6 9/19/2011	Class 2	Provide updated (and more legible) site maps.	Figures 1-1, 1-2, and 3-1	GSI	
Rev 6 9/19/2011	Class 2	Update and correct the list of references (prior reports) that pertain to the monitoring program.	Sections 2, 3, 4, and 8	GSI	
Rev 6 9/19/2011	Class 2	Correct the text to address typographical errors, grammar, and redundancy, and also to clarify some wording.	Entire text of Plan	GSI	
Rev 7 10/14/2011	Class 3	Revise the network of monitoring wells (for background and detection monitoring) and the piezometer network to reflect future expansion of Landfill Unit L-14 (Cell 5). This includes expanding the size of WMA-2 and adding a point of compliance (POC) boundary along the east side of WMA-2 to account for groundwater movement from Cell 5 / Sump 5. Wells 4H-1 and 4H-2 are added as detection monitoring wells along the eastern POC boundary.	Section 3.1, Section 8, Figure 1-2, Figure 3-1, Table 3-1, Table 3-2, Table 5-1, Appendix E, and Appendix F	GSI	
Rev 7 10/14/2011	Class 3	Revise schedule for well decommissioning.	Table 3-3	GSI	
Rev 7 10/14/2011	Class 3	Add text clarifying the purge procedure for low-yielding wells. Fix pump settings and target DTW calculations in Appendix E.	Section 5.1, Appendix E	GSI	

**REVISION LOG
GROUNDWATER MONITORING PLAN**

Revision No./Date	Type	Description	Section/Table/Figure/Appendix Revised	By (initials)	Revision No./ Approval Date
Rev 8 9/11/2013	Class 3	Addition of monitoring wells 2E-9 and 3H-1 to expand WM area to include the Waste Pile.	Table 3-1; Table 3-2; Figure 3-1		
Rev 9 12/13/2013	Class 2	Added 3Ra-2 removed 3R-2.	Appendixes E&F; Figure 3-1; Tables 3-1 & 3-2		
Rev. 10 9/18/17	Class 1 M121	Update groundwater monitoring wells, decommission well 3U-2 and nested piezometers 3A1/3A2, construct well 3E-2	Figure 1 & Tables X-1, X-2, X-3; Tables 3-1, 3-2, 3-3, 5-2; Appendix E & F		6/25/18
Rev 11 3/31/2023	Class 1	Decommission piezometer I-2	Figure 3-1, Tables 3-2 & 3-3		6/15/2023
Rev. 12 4/29/2024	Class 3	Description of subsurface geology. Updates to groundwater monitoring network. Updated maps. Changes to reflect replacement of wells. Program optimization, goals, monitoring and data collection.	Sections 2, 3.1 & 3.8. Figures 7-3, 7-4, 7-5, 7-6, 7-7, 7-7A, 7-7B. Tables 7-1, 7-2, 7-3, 7-4, 7-5, 7-6, 7-12, 7-14, 7-15	JLD	11/17/2025