

**Response to Alabama Department of Environmental Management (ADEM) Comments on
Draft Feasibility Study Report – Charlie Area (dated February 16, 2018)
Fort McClellan, Alabama**

Comments from Jason Wilson, Chief, Governmental Hazardous Waste Branch, Land Division, provided in a letter dated May 7, 2018.

Comment 1: Page 3-5, Section 3.3.1.2 Digital Geophysical Mapping Process Option: This section states, “One of the potential limitations of using DGM methods is its decreased effectiveness in areas saturated with subsurface anomalies because of the inability to isolate individual anomaly locations; however, the RI results did not identify any locations of saturated anomalies, indicating that this technological limitation will not impact the ability to conduct a removal action using DGM methods.” While the remedial investigation (RI) did not identify saturated areas, high anomaly density areas are suspected. Fort McClellan also contains numerous veins/pockets of ferrous soil that can impact digital geophysical mapping (DGM) operations. Please add language to ensure all future planning for DGM operations identifies contingencies for these possible site conditions. In addition, please add this information to the conceptual site model (CSM) within section 2.2.4 of the report.

Response 1: Paragraph 3.3.1.2.2 was changed to: “One of the potential limitations of using DGM methods is its decreased effectiveness in areas saturated with subsurface anomalies because of the inability to isolate individual anomaly locations; however, the RI results did not identify any locations of saturated anomalies, indicating that this technological limitation will not have a significant impact on the ability to conduct a removal action using DGM methods. However, areas of high anomaly density and/or veins/pockets of ferrous soil may be encountered in Charlie Area. The inability to isolate individual anomalies in these areas may affect the selection of an appropriate recovery technology (refer to Section 3.3.2). There are significant vegetation and topographic constraints in Charlie Area that will have to be negotiated to avoid limiting the effectiveness of DGM. Any vegetation obstructing the ground surface will require removal. Slopes over 40% pose both quality and safety issues for DGM data collection.”

In Section 3.3.2, Recovery Technologies, the first two sentences of Paragraph 3.3.2.2 were revised to address the potential contingencies for excavating anomalies in areas of high anomaly density: “Mechanical investigation methods involve using heavy equipment to remove both the overburden and the source of the anomaly simultaneously. This method is most appropriate for areas where high anomaly density prevents the ability to isolate individual anomalies for removal.”

Section 2.2.4.2, Physical Profile, of the Conceptual Site Model was revised to address the potential presence of high anomaly density areas. Paragraph 2.2.4.2.3 was revised to: “The dense vegetation may restrict accessibility in portions of the MRSs, which will present challenges to MEC recovery operations. Additionally, areas of high anomaly density and/or veins/pockets of ferrous soil may be encountered in Charlie Area. These areas may prevent the ability to isolate individual anomalies for excavation, which will require the

implementation of contingent approaches/technologies during MEC recovery operations.”

Additionally, Table 3-2 was revised to include the potential use of analog methods as a contingency for the preferred detection method of DGM in high anomaly density areas. The note in Table 3-2 was revised to state that, “analog geophysical surveying can be conducted in areas with steep slopes or as an interim step to reduce the number of anomalies prior to DGM, and advanced geophysical classification can be used under paved areas.”

Supplemental Responses:

1. During preparation of the Proposed Plan, it was recognized that the annual operation and maintenance (O&M) costs associated with verification of the Institutional Controls and Regulatory coordination/reporting were inadvertently omitted from Alternative 5. The Alternative 5 costs were revised in Section 5.3.4.2.7, Tables 1-1 and 5-4, and Appendix B to reflect this change. Because the Alternative 5 present worth O&M costs were such a small component of the overall present worth costs for each MRS (i.e., less than 1%), this revision did not impact any of the alternative analyses.