**UPDATE ON NOVEL APPLICATION of AGC AT REDSTONE ARSENAL MSFC-003 – ACHIEVING SUCCESS WHEN THINGS DON’T GO AS PLANNED**

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Advanced Geophysical Classification (AGC) was utilized as part of the Interim Measures to remove disposed chemical munitions at Redstone Arsenal’s George C. Marshall Space Flight Center, while safely minimizing the number of digs requiring full chemical protocols. The novel approach included intrusive investigation of larger potential chemical warfare material (PCWM) items under full chemical ops, followed by removal of the remaining anomalies using contingency protocols due to the presence of smaller, non-standard MEC. Initially, and as presented last year, the classification of UltraTEM data resulted in a significant reduction in the number of digs meeting PCWM criteria (approximately 5% of required single point digs).

This work is ongoing; however, lessons have been learned during the intrusive investigation so far. The presence of extensive infrastructure and magnetic soils, as well as deeper than expected items of concern (IOC), presented challenges, and resulted in the misclassification of a deep QC seed and recovery of an IOC from a threshold verification dig. This presentation will discuss the team’s approach to these MQO failures, stepping through the process to ensure correct classification and recovery of deep PCWM. The evolving conceptual site model, root cause analysis and corrective action implementation necessitated a revised classification approach utilizing parameters other than library match, resulting in significantly more PCWM digs than originally expected (~17%). The overall data usability analysis and achievement of project goals will be covered.